BUILDING COMPANIES' RESPONSES TO URBAN REGENERATION

MARK SMITHERS

A thesis submitted in partial fulfilment of the requirements of the Council for National Academic Awards for the degree of Master of Philosophy

February 1992

The Polytechnic of Wales in collaboration with
Lovell Urban Renewal Limited

Declaration

This is to certify that neither this thesis, nor any part of it , has been presented, or is being currently submitted, in canditature at any other University.

(Candidate)

Acknowledgements

This research would not have been possible without the help of many people. In particular the candidate would like to express his thanks to Mr.R.G. Penn, his Director of Studies, and Dr. S.Wild, his Supervisor, at the Polytechnic of Wales for their advice, suggestions and patience.

The candidate would also like to thank Mr. J. Lye of Lovell Urban Renewal Ltd. for his help and the help of his company in the completion of this work.

Finally, the candidate would like to express his thanks to the administrative staff of the Department of Civil Engineering and Building at the Polytechnic of Wales for their logistical support without which this research could not have been completed.

CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

The 1980s saw a dramatic increase in the number and size of urban renewal schemes in the U.K. The methods used to implement urban renewal were seen has having a considerable impact on local industries. The effect on the construction industry in regions of large scale urban renewal was the most obvious. A number of high profile innovations made by building companies to take advantage of urban renewal were documented. These included the formation of consortia both nationally and regionally, the formation of specialist divisions dedicated to undertaking urban renewal and an increase in the number of partnership schemes. However the true extent of these innovations throughout the industry was not known. Also there was no reliable information about the attitudes held by the industry towards urban renewal and its future on a national basis.

In order to remedy this lack of knowledge this research project was commenced the Autumn of 1988. It was based upon a questionnaire survey of the largest 867 building companies in the U.K. The questionnaire was devised with the help of the collaborating establishment, Lovell Urban Renewal Ltd, and referred to previously documented responses made by building companies towards urban renewal.

Of the the target population of 867 companies 209 companies completed and returned the questionnaire. Statistical analysis of this sample showed that a large proportion of companies felt that they had responded to urban renewal. The majority of these responses, however, appeared to be superficial with only slight organisational adaptations and changes in working practice involved. The proportion of companies that had innovated in fundamental ways was much lower although they still formed a significant number of companies. The most common of these fundamental innovations were the formation of consortia and the use of joint ventures with a variety of partners.

Attitudes towards urban regeneration varied significantly between larger and smaller companies and between those involved and those not involved suggesting that misconceptions about the nature of urban renewal may be widespread.

Although the number of companies employing fundamental innovations is relatively small there was an expectation from virtually the entire sample that the number and scale of urban renewal schemes would continue to grow. Also an increasing number of companies expected to find the urban renewal market important to them in the future. The findings of this research may be of interest to such companies.

Definitions

For the purposes of this work the following phrases have been defined :

i. Renewal - *"To make new, or as new again; to restore to the same condition as when new, young or fresh b. to make spiritually new; to regenerate"*

> The Shorter Oxford English Dictionary vol II, Oxford University Press, 1978

ii. Urban Renewal - *"A planned urban redevelopment"*

> A Supplement To The Oxford English Dictionary vol III, Oxford University Press, 1982

iii. Urban Regeneration - *"1.The action of regenerating the process or fact of being regenerated; re-creation, re-formation etc. b. Revival, renascence, re-constitution on a higher level"*

> The Shorter Oxford English Dictionary vol II, Oxford University Press, 1978

As the distinction between the last two definitions is so slight in terms of the scope of this work the two phrases have been used interchangebly throughout.

iv. Building Companies

These are defined as companies whose principle activities include at least one of the following:

a. Building

b. Building Contracting

c. Property Development

v. Innovation/s

This term is used in conjunction with the responses made by building companies to urban renewal. It is defined as a physical change in company structure and/or approach aimed at improving the ability of a company to undertake urban renewal projects.

Chapter 1

Introduction

The construction industry has always been subject to the changing needs of the societies that it serves. Changes in demand for different types of building, changes in construction technology and changes in the policies of governments have all had to be accommodated by the industry. Not least national and international economics have played an important role in influencing the construction industry.

The latter half of last decade has seen a period of economic growth that has led to an increase in demand for land suitable for development (Moor, 1988). However further development of green field sites was, and still is, unpopular with the public and Local Authority Planning Departments and alternative sources of land had to be found. Fortunately the increased demand for land coincided with a new desire to upgrade the urban environment and return economic prosperity to the inner cities. The success of regeneration schemes in the United States such as the Baltimore and Lowell projects (Falk, 1987) prompted increased support from the government and helped to provide the incentive that was needed to start the regeneration process. The government initiatives that have been implemented during the last few years have created a new development environment that has placed the onus for redevelopment largely on the private

sector. The result has been that property and building companies have been forced to take the initiative in urban renewal (Key, 1988). This is in contrast to the large scale redevelopment programmes of the 1960's (Hall, 1975) in which the redevlopment process was handled almost entirely by the public sector leaving the building industry to fulfil a very straightforward role i.e. that of a contractor to a public sector client.

The development environment created during the 1980's has been successful and new development has been channelled into urban areas at an unprecedented rate. In order to achieve this the traditional inhibitors of inner city redevelopment have been overcome. Some of the technical problems include contaminated sites, the restrictions of infill sites, the provision or removal of services, and problems of access and vandalism, to name a few. Other problems arise with the development process itself. These include splintered land ownership and subsequent acquisition difficulties, rights of access, marketing and financing the development (Relph-Knight, 1985).

However, the publicity surrounding urban renewal and the increasing number and size of regeneration schemes suggests that these problems have been

overcome and also that urban regeneration work can provide good profits for those companies willing to exploit it. Indeed the potential for the building industry is identified by Couch and Morton (1988).

> "New oppportunities have opened up for the major contractors in the large scale urban renewal schemes usually financed through partnership arrangements of various sorts; they have also provided opportunities for diversification to the large speculative builders."

In order to undertake urban renewal some building companies have adapted or responded in certain ways to take advantage of the opportunity. Some of the most fundamental responses that have been made can be identified at this stage. These include the setting up by the largest companies of specialized divisions or sections to handle regeneration work. An example of such an innovation is the specialist subsidiary formed by Y.J. Lovell Holdings Ltd. and dedicated to undertaking urban renewal work. This subsidiary, Lovell Urban Renewal Ltd., is acting as the collaborating establishment for this research.

There has also been an increased willingness to form consortia to handle large scale projects and

promote regeneration. An example of this is the British Urban Development (B.U.D.) consortium which is comprised of eleven of the largest construction companies in the U.K. (Peppinster, 1988). Other examples of consortia are the Birmingham Heartlands Consortium (Welch, 1988) and the Royal Victoria Docks Consortia (Peppinster, 1988). Support for private sector regeneration agencies often sponsored by construction companies has also been forthcoming. An example of such an agency is the Partnership Renewal of the Built Environment (P.R.O.B.E.) which was set up between Y.J. Lovell (Holdings) Ltd. and the Halifax and Nationwide building Societies (Lovell, 1988). Finally, there has been an increase in the number of joint ventures with financial organisations or developers.

These are all high profile and well publicised innovations that have been made by building companies. When these innovations are considered with the increase in the number and size of urban renewal schemes around the country it would appear that the field of urban renewal is important to the building industry and likely to become increasingly so. However, the true significance of urban renewal to the building industry is unknown, at this stage, as is the number of building companies that have

responded to urban renewal in innovative ways, the extent of these innovations, the nature of smaller scale innovations or the attitudes of building companies towards urban renewal. All of these are factors that are examined in this research, the two main aims and objectives of which are:

i. To evaluate the nature and extent of responses made by large building companies to urban renewal initiatives.

ii. To assess the corporate attitudes within the building industry towards urban renewal.

In order to achieve these aims it is first necessary to have a good understanding of the basic concept of urban renewal and the factors that have an effect upon the the way that building companies have innovated. Chapter 2 examines these subjects in detail drawing upon the work of previous authors in the field. In Chapter 2 the causes of urban decline and the need for regeneration are discussed along with the concept of urban renewal. The methods currently being used in the U.K. to help promote urban renewal are then examined in some detail as these initiatives have a major effect on the market conditions for companies undertaking urban renewal

work. Finally in Chapter 2, an examination is made of the documented responses and innovations made by building companies to urban renewal.

The literature reviewed in Chapter 2 provides the background to the current research work and has a direct effect upon the methods used to achieve the aims of the research. These are discussed fully in Chapter 3 which describes the methodology employed in this investigation. In this case the method used is a questionnaire survey of large building companies. The sample selection, the operational aims of the survey and the survey design and implementation are all described in detail.

Subsequently, Chapter 4 provides a detailed analysis of the results obtained from the survey. This is a quantitative analysis of descriptive statistics together with a qualitative data analysis, examinations of relationships between variables and differences in response by subgroups within the sample.

Finally, in Chapter 5, conclusions are drawn and a discussion relates the findings from Chapter 4 both to the initial aims of the research and to the literature discussed in Chapter 2. The key findings

are then summarised and suggestions are made for possible future research in this field.

By achieving the aims of the research it will be possible to provide valuable information about the nature of urban regeneration work, its current geographical distribution, the types of corporate responses that have been made, the advantages and disadvantages of these, the attitudes held within the industry to urban regeneration work, possible future trends in urban work, and the lessons that may be learnt by the building industry overall.

Chapter 2

Literature Review

2.1 Introduction

The main aim of this research project is to evaluate the responses of building companies to urban regeneration. In order to do this it is important to have an understanding of the nature of urban regeneration. This should give a good understanding of the environment in which building companies have to operate. Once the general nature of urban regeneration is established, the role of the building industry, as currently documented, can be examined. This will provide a basis for the detailed investigation that takes place later in this work.

This chapter will, therefore, examine the background to the growth of urban renewal that has been witnessed over the last decade. In particular the causes of urban decay, the concept of urban renewal and methods for implementing urban renewal are considered. The factors that make large scale urban renewal an unusual environment for the building industry will then be examined. Finally, the effect on building companies is examined along with some of the responses made by such companies. In so doing it will be possible to gain an appreciation of the scope of urban renewal and the role which the construction industry can take in bringing about redevelopment.

2.2 The Causes of Urban Decay

Firstly let us examine the need for renewal and the reasons for that need. Professor Graham Ashworth gives a good idea of the root causes of the problems in a paper presented to the Manchester Library and Philosophical Society (1987). In this paper Ashworth sets out the reasons for urban decline and charts the steps that have led to ultimate decay.

Ashworth states that it was the Industrial Revolution, which created or enlarged many of our cities, that sowed the seeds of decay. The environmental squalor caused by rapid industrialisation led to extremely poor living standards within the city and a desire, particularly by the wealthy, to leave. Newly created suburbs with good transport links enabled the wealthy to move to the outskirts leaving squalor behind.

Over time a major expansion of rail and, increasingly, road networks began to have a further social and economic impact upon the cities. Following the Second World War, city centre based industrial activities began to relocate to take advantage of ringroads and motorways. Soon the very volume of

traffic would start to have an effect on the quality of city life.

The problem was not helped by comprehensive planning and redevelopment in urban areas. A boom in speculative development occurred during the fifties and sixties. These developments were of generally poor quality and driven by the need to maximise profits. This coincided with the advent of out-of-town shopping and the development of greenfield sites on the outskirts. The effect of both was to remove resources and human activity away from the centres.

These are themes taken up by Peter Hall (1973) where he discusses the problems facing urban planners in the years following the war. Here he highlights the large increase in the birth rate immediately after the war. This influenced the planning process considerably as future population requirements had to be considered in determining such matters as housebuilding programmes, recreational needs and traffic forecasts. Furthermore, economic migration from rural to urban areas increased, placing greater pressure on towns and cities. The South East, London and the Midlands were particularly affected. In fact the birth rate was to decline during the 1960s and the dire forecasts of the early 1950s failed to

materialise. However the pressure on urban areas remained considerable and other factors began to have an effect.

One factor was the rapid rise in car ownership which had not been anticipated. After the war about one in ten households owned a car. By 1966 half the families in Britain owned one car or more. This had two effects. Firstly there was an increase in space required for both parking and new roads. Secondly, it contributed to the decentralization of many urban areas. New suburbs appeared around older urban areas. This had begun in the late 19th century and increased dramatically during the 20th century culminating during the building boom of the 1960s. However, retailing and other sources of employment remained in the urban core. This led to a massive increase in inner city parking requirements and the construction of new roads through urban areas. The changes required to the traditional urban fabric were considerable. The environment of the inner city thus became even less attractive for habitation, and decentralization of the population accelerated.

Finally in the seventies and early eighties the U.K. went through a period of recession during which manufacturing industries severely declined. This was

followed by a recovery during the late eighties which was led by service and high technology industries. Much of this new industry has been located on greenfield sites using cheap, modern factory units. Both of these factors have led to a further decline in inner city areas.

These are the reasons outlined by both Ashworth and Hall for the decline of our inner urban areas. These same reasons have been outlined in other papers, particularly Howes (1988) which is discussed later within this chapter.

2.3 The Concept Of Urban Renewal

Having examined the need for renewal and its causes it is now necessary to look at what is meant by urban renewal. Alsayyad and Rabbinowitz (1988) in a paper for "Housing Science" attempted to define exactly what is meant by urban renewal. Initial research had shown that it was impossible to define a single concept of urban renewal. Instead they found that renewal could be related to many different concepts both internationally and within a single country. Because of this Alsayyad and Rabbinowitz attempted to limit the extent of the urban renewal concept by studying only ten different countries with similar

economic structures. Even so they could only find one area that appeared to show some uniformity internationally. This is illustrated by the following quote:

> "There appears to be only one area where the majority of the ten countries show some form of correspondence in their urban renewal policies. Urban renewal, in a cross-cultural sense, can be seen as an opportunity to maintain or change existing economic or urban order. Using urban renewal directly to remove blight, dilapidated buildings and squatter settlements, provided the means to make available prime central city land for use by the top economic institutions of these countries whether they were business, industry or political parties. " p.97

Apart from this one area of agreement Alsayyad and Rabbinowitz concluded that one of the few things common to all economic systems is a desire to achieve an appropriate economic return on the land in urban renewal areas. But apart from this, urban renewal has too many meanings to be able to classify it easily under our current thinking.

The work of Alsayyad and Rabbinowitz fails to

provide a definition of the concept of urban renewal which is universally acceptable to all countries and only manages to find a limited area that is common to renewal internationally. However it may be possible to provide a more detailed definition of the concept if only the U.K. is considered. The best way to do this is to examine in more detail the initiatives that have been used over the last decade to encourage urban regeneration.

2.4 The Implementation Of Urban Renewal

When determining how to achieve urban renewal it is important to have an understanding of the basic factors inhibiting inner city development. A description of these is given by Denise Caudle (1987). She identifies the nature of land ownership in urban areas as fundamental in preventing development. An examination of this problem is discussed later in this chapter. Secondly Caudle identifies difficult site conditions as another inhibiting factor. Both of these Caudle describes as physical inhibitors which relate to the physical nature of inner city sites. Complementing these are psychological inhibitors relating to both the attitude and perception of developers, investors and funding organisations. The study of developers

described in Caudle's paper highlights the attitudes of developers to working in inner cities. Almost always a series of reasons are given by developers for operating in other areas. Often the reasons given are related to the Local Authority. These reasons concentrate on high rates, a bureaucratic planning system, poor communications and over zealous development control.

This concentration of complaints about Local Authority performance has been studied in detail by Campbell et al for the Policy Research Unit of the Department of Economics and Public Policy at Leeds Polytechnic (1988). This paper describes in brief the governmental policies initiated to counter urban decay. These are described in more detail later in this chapter. Many of the points raised by Caudle are reiterated. However, the effects of job creation on the local urban economy are particularly closely studied. It is considered that the construction industry is an important source of employment in such areas and that by creating jobs greater economic activity will follow. These points are returned to at a later stage in this chapter. Firstly, though, it is necessary to examine closely the methods used by the government to implement urban regeneration.

Christopher Howes (1988) paper in "Land Development Studies" gives a good overview of the policy instruments that have been used to promote regeneration. Howes initially describes the process of decline and highlights the same points described by Ashworth. He then goes on to describe the scale of the problem that existed in the eighties. Data gained from a Department of Environment Derelict Land Survey (1984) showed that in 1982 113000 acres (117 sq. miles) of land in Britain was derelict of which 85000 acres were considered justifiably reclaimable. Furthermore a report in 1987 by J. Loveless for the Adam Smith Institute (1987) identified over 300 sq. miles of vacant land in urban areas. This report also stated that 60-70% of such land is owned by public bodies.

This point is taken up by Kivell and Mckay (1987) in a paper devoted to the subject of public land ownership. In this paper the controversial nature of public land ownership in urban areas and the reasons for it are examined. A detailed study of the city of Manchester is undertaken which shows that currently fourteen separate public bodies own 65% of the land in the city. The authors demonstrate the effect that this has had upon the urban form of Manchester, particularly through the development of large local

authority housing estates and through inner city redevelopment projects of the past. They also recognise that problems have arisen as far as renewal is concerned. These are the same problems that Caudle identifies i.e rates, development control and planning constraints. Very often it is the ideology of the public owners that has led to such problems.

However, although Kivell and Mckay highlight the potential problems that public ownership of urban land has caused in the past they do not address themselves to the potential opportunities for current attempts at urban redevelopment. These opportunities are of considerable importance for the construction industry simply because so much land in urban areas is publicly owned. Indeed many of the policy instruments that Howes describes are designed to increase the number of opportunities for redevelopment through the initiatives of the public sector.

All of the initiatives described in Howes' paper on policy instruments are designed to promote regeneration and are well documented in other works. However, Howes paper is particularly useful as he does order the initiatives into those on the supply side and those on the demand side. On the supply side

he identifies Land Registers, Derelict Land Grants and Urban Development Corporations. These measures increase the availability to the developer or building company of urban areas to be redeveloped by making land available. On the demand side he identifies the Urban Programme Grant, Urban Redevelopment Grant, Urban Regeneration Grant and Enterprise Zones. These measures promote demand for urban land to be developed primarily through the use of financial incentives and, in the case of Enterprise Zones, through simplified planning regulations and subsidised uniform business rates.

These initiatives have all proved effective to various degrees in promoting urban renewal. It is, therefore, important as far as this work is concerned that there is a good understanding of their mechanisms, purpose and effectiveness. It is these policy instruments that provide the interface between the desire for urban renewal and physical redevelopment itself. The effects of these initiatives are of particular importance to the building company or developer working in urban renewal, as they create the specific environments in which a company must operate. This then must have a direct effect upon any responses that the industry may have made towards urban regeneration.

The highest profile of these policy instruments is the Urban Development Corporation (U.D.C.). As well as Howes' work, Paul Lawless (1988) provides a good description of the U.D.C. in a paper for "Cities". In this paper Lawless describes the history of the U.D.C.'s, their procedures and purpose, the debate surrounding their use and some of the possible alternatives to them.

Essentially U.D.C.'s were envisaged as preparing inner city areas for subsequent regeneration later by private sector finance. Although publicly funded it was always intended that they would undertake certain development functions such as land assembly, environmental improvement, improved infrastructure and transport links. This was intended to attract private sector finance to develop newly prepared parcels of land. High gearing ratios of public sector to private sector finance have been achieved through the use of U.D.C.'s. The London Docklands Development Corporation (L.D.D.C.) achieved a gearing ratio (public sector: private sector) of 1:10 and the Cardiff Bay Development Corporation (C.B.D.C.) expects a gearing ratio of at least 1:5.

In promoting physical redevelopment most U.D.C.s

appear to be very successful. Developers and construction companies appear willing to work in designated development areas although at present there are only eleven. The amount of construction related renewal is high and great emphasis is placed upon physical redevelopment. This is where the greatest controversy lies. Development Corporations are accused of being undemocratic and sectorally biased. For instance the lack of employment and housing availability for local people has been a considerable source of criticism in the case of the L.D.D.C. in particular. These problems, however do not form part of this work and have been extensively researched elsewhere.

The use of Land Registers is another policy device intended to promote regeneration through increasing the supply of reclaimable land. They were established in 1980 under the Local Government and Planning Act of that year. Their primary purpose was to provide information to developers and builders about publicly owned derelict or unused land. They also help prospective building companies and developers to purchase particular plots of land that otherwise may be difficult to obtain.

The register is kept by the Department of the

Environment (D.O.E.) and is compiled from information supplied by all public bodies. Sites registered must be over one acre in area and, in the opinion of the Secretary of State, be unused or under utilised. Information kept on the Register includes details of ownership, planning history and planning constraints. The Land Register for England is housed at the D.O.E. headquarters in London and is freely available for examination by the public. Regional Registers are also compiled and are available at regional D.O.E. offices.

The Land Register scheme is of great help to developers and building companies in land acquisition and thus increases the supply of land available for redevelopment. However this country has no system for total registration of ownership of all land and thus land acquisition, particularly for large urban sites where ownership is frequently splintered, is often difficult for the developer. The registration of all publicly owned land alleviated the situation to a certain extent but the problem of land assembly is still a formidable one to overcome. This is the reason why Urban Development Corporations, as described earlier, have powers of compulsory purchase and land assembly. However, the areas covered by U.D.C.'s are limited and elsewhere the developer has

only the Land Register to provide information.

The third of the supply side initiatives identified by Howes was the Derelict Land Grant (D.L.G.). This subject is also discussed in depth by Rose (1986). The D.L.G. is intended to promote the supply of urban land for renewal by providing grant aid in order to upgrade poor quality urban land. In this case the definition of derelict land is "land so damaged by industrial or other development that it is incapable of beneficial use without treatment" (p.60). Grants are usually set at 100% for Local Authorities and 80% for others in areas designated as Assisted Areas or Derelict Land Clearance Areas. In other areas the grant is normally set at 50%. The amount of D.L.G. paid is enough to cover any losses that may be incurred through carrying out an approved reclamation scheme. The cost is generally considered to be the cost of returning the land to the equivalent of a greenfield site.

Some research has been carried out into the effectiveness of D.L.G.'s and this has shown the system to be an effective method of land reclamation. Gearing ratios calculated (Tym, 1989) show that for industrial and commercial projects a ratio of 1:10 is common and for housing schemes a ratio of 1:6 is more

normal.

Turning now to Howes' demand side initiatives we must consider first the Urban Development Grant (U.D.G.). This was introduced in 1982 following the success of a similar scheme in America. The grant is intended to be the minimum required to make the project commercially viable i.e. the difference between the cost of a project and its value on completion. However, to qualify the project must offer value for money, must attract substantial private funding and produce reasonable benefits for the area. The scheme is flexible in operation, with money being provided for setting up or expanding businesses as well as for building and development. Also money may be provided in grant or loan form. The average leverage ratio is 1:4.1 and applications are invited from any of 58 authorities under the Urban Programme. Application for a U.D.G. is through local authorities who also contribute 25% of the grant.

The Urban Regeneration Grant (U.R.G.), is aimed at large schemes over a longer term. Sites must normally be at least 20 acres, which compares with an average of 3 or 4 acres for the U.D.G. Alternatively buildings must be at least a quarter of a million square feet. Again Urban Programme areas receive

priority and there is a requirement for substantial private sector funding. As for the U.D.G., the grant or loan covers the difference between cost and value of a project, and is designed to make development projects commercially viable. Unlike the U.D.G. the grant is paid directly to the company involved in development. This is done in order that development can be encouraged even when the local authority cannot afford to contribute or refuses to contribute.

Finally, Howes examines the nature and role of Enterprise Zones (EZ). Introduced in 1980, they were an experiment designed to determine the effects of lifting certain controls. These included relaxed planning laws, exemption from rates and 100% tax allowances on capital expenditure.

In conclusion Howes reiterates the demand and supply sides of the different mechanisms and emphasises the need for cooperation between public and private sectors. He provides a good overview of the different methods of promoting renewal which, in turn, defines to a certain extent the working environment of companies attempting regeneration work. This may help to determine the way in which construction companies have adapted themselves. The problem is that Howes work examines only government

sponsored initiatives and ignores the requirements of construction companies. Consideration must now be given to the needs of the construction industry and to see whether these needs coincide with the initiatives that the government has provided.

2.5 The Responses Of The Building Industry

The previous sections have examined the causes of urban decay, the concept of renewal and the methods used to promote renewal in some detail. These sections provide a background to the more detailed examination which follows. This investigates the way that building companies respond to external factors, the specific requirements of the building industry in undertaking urban renewal work and the documented responses of companies to urban renewal.

The first step is to examine the way that building companies respond to external influences and changes in their working environment. The concept of organisational responses to external factors is discussed in a paper by Peter Lansley and Thelma Quince (1981) relating to the effects of the recession of the 1970's. This work examined 26 organisations in the building industry and the manner

in which they adapted to recession. Several key factors were identified and these were later developed further in a paper in Construction Management And Economics (Lansley, 1987). In his paper Lansley attempts to link the environment of the construction industry with corporate strategies and structures. In introducing the paper Lansley describes the overall, slow reaction of the industry to changes in its working environment. There are exceptions but Lansley questions whether this is due to good management by a particular company or simply encouragement by client organisations to an effective firm. Lansley considers that most clients have been unable, until recently, to recognise effective companies and that any change has come "more from a fear of being left behind by competitors than from the belief in the benefits of innovation."

Lansley then goes on to consider how corporate strategies have changed over the last thirty years and what effect this has had upon the organisational structure of construction companies. He uses a framework of five factors to consider each of three different periods over the last thirty years. The five factors are:

i The type of environment of a firm.

ii What the environment implies in the way of

services offered by the firm.

iii How the environment affects the organisational structure.

iv The style of management.

v. Problem solving skills.

He also considers the type of changes that may take place within a firm. These were originally classified by Eppink (1975 in Lansley, 1987) as "operational", "competitive" or "strategic" changes. Changes that are familiar, predictable and do not entail a shift in the relationship between the firm and its environment are described as operational. Long term, subtle changes in the industry that lead to differing relationships between the firm and its environment are described as competitive. Finally, strategic changes lead to a fundamental shift in relationships. They are completely new and unexpected for the firm and require quick and innovative responses.

The three periods that Lansley examines each relate to a different economic climate in the U.K. The last of these is most pertinent to this work. Here, Lansley examines the 1980s and identifies five issues that are of particular importance. These are:

i. Government

ii. Clients

iii. Quality

iv. Subcontracting

v. Overseas Markets.

Following this a strategy is considered which determines the need for planning and rationalisation following the strategies of the 1970s. This identifies the need for firms to recognise their strengths in the marketplace by analysing their own expertise and market opportunities. Firms are also encouraged to identify areas in which they could become stronger but for which organic growth would be too slow. The importance of acquisitions by large firms is noted, particularly in the speculative housing sector. The need for firms to be brought together in order to share risks and raise finance for large scale projects is also considered along with the implications of new technology, client awareness and the changing role of construction professionals.

The changes required to meet this strategy are considered. These range from adapting organisational skills within a company to organising a team approach for dealings within external consultants. The structure of the firm must also be examined. This is

particularly important when companies are seeking to be innovative. Clients tend to expect the industry to be able to provide a wide range of services each requiring a different organisational structure. Contractors must decide if they can meet different requirements from the "core" organisation or whether separate organisations must be set up to meet these demands leaving the core to cater for the traditional business.

Either of the above can lead to different problems. Firstly, there may be problems in meeting the actual needs of the market as opposed to the perceived needs of the market. In the second case, difficulties may arise in transferring experience from the new organisations to the existing core. This, in turn, leads to questions about the need to retain such core organisations once the innovative units have gained experience in new methods of working.

Finally, Lansley considers the impact of such a strategy on the management styles of construction companies and examines the importance of leadership in achieving success in the environment of the 1980's.

In conclusion, Lansleys'paper reinforces the link

between the working environment of the firm and the strategies of the firm. An overview of the different links is provided that covers each of the three periods examined previously. Lastly the paper considers "that the nature of the environment pervades an organisation's strategy and its attitudes towards investment, risk and innovation." Lansley also regards the environment of the 1980's and the new demands being made by client organisations as conducive to an increase in innovation over previous years.

Thus, the work of Lansley covers the nature of corporate strategy in the construction industry and the way that it may change to suit the prevailing environment. It establishes the link between strategy and environment and indicates the possibilities of increased innovation during the 1980's. Although not discussed by Lansley, the growth of urban regeneration over the last decade would appear to be one area in which some firms have adopted an innovative approach. These innovations may have occurred in a number of ways, one being the movement away from purely building contracting towards project management and speculative development. This last was not mentioned by Lansley but would appear, certainly in the field of urban regeneration, to be an

important innovation. Indeed many of the approaches to urban renewal depend upon an element of development work. This may come from the core business, associated service organisations or through collaboration with completely separate development companies. It is important, therefore, that the attitudes and strategy of building companies are understood.

A good indication of the strategy of companies working in urban renewal is given by C.J Collins in a paper in "Built Environment"(1986). This examines the developers viewpoint with regard to urban renewal. Here Collins examines what motivates private sector development in areas of urban regeneration. In particular, the development of London Docklands is examined in detail. According to Collins the main objective of his company, Heron Quays, was "to develop an area that I thought would become prime and central to the Docklands 'new town', work on it and market it sensibly." The main aim for any company, however is to make a profit and here three criteria were considered necessary. These were:

i. To achieve a profit margin which, by the nature of the project and the area was above average.

ii. To create the possibility of making very large profits if all endeavours succeed.

iii. To set up a land bank and provide opportunities for generating other projects.

Collins then examines the factors that were central in providing success for the developers in the case of the London Docklands Development. These were as follows:

i. Time Scale - the object was to secure a profit as quickly as possible. This in turn leads to reinvestment over a short period and also attracts other developers to what is seen as a potentially successful area.

ii. Infrastructure - the provision of services, communications and transport to a redevelopment area is seen as essential to successful regeneration. Ironically, in the case of the LDDC the infrastructure was inadequate; however, the unique nature of the London Development area overcame the difficulties that this caused.

iii. Government Support - developers need confidence

in continuing support from the government in an area of regeneration.

iv. Local Authority Support - here again support and promotion is needed from local government.

v. Marketing - in large scale schemes where a public body is in overall control there must be a sophisticated approach to marketing. This includes convincing people that what was once a run down area is now somewhere that they would wish to relocate to.

vi. Commitment - some speculative development must come early in order to convince people of the will to redevelop an area. Often this is accompanied by the commissioning of a new public building in the area to indicate the commitment of local or central government.

In conclusion Collins describes the range of private developers that exist in Britain and feels that they are in an ideal position to decide what the market wants and produce solutions. He argues that all that is required to promote development is oppportunity, the right climate and some stimulus. He claims that the property market has become

sophisticated enough to be able to envisage new schemes and developments as appropriate. All that is required in areas of urban decay is for the factors that have led to decay to be reversed. If this occurs the property/construction industry can be relied upon to instigate development.

The work of Collins gives a good indication of the factors required to encourage developers to work in the field of urban renewal. However it is written from the viewpoint of a purely development orientated company. This research is intended to examine, the ways in which building companies may have adapted themselves in order to meet the challenge of urban renewal. Collins' work is therefore useful but of limited application to the aims of this work. It does not give any indication of the range of innovations that have been effected by building companies to meet the demands of urban renewal.

An indication of the needs of housebuilding companies is given in a report by an independent commission for the House Builders Federation (1987). This report examines in detail the requirements of building companies for the initiation of urban regeneration. The aim of the report was to examine the problems of building private housing in inner

city areas and to suggest how they may be overcome. The study concentrated on eleven areas identified by the H.B.F. as typical of urban decay nationally.

The study concluded that it was impossible to suggest measures which would increase private housebuilding in all urban areas. This is due to the large variety of problems that occur in every town and city and between Northern and Southern cities. The problem of land ownership was highlighted and in particular the lack of reliable information about vacant land, the demand for housing and the interaction between different housing markets, was noted. The measures taken by the government to alleviate urban decay were considered not to go far enough. The amount of public investment was thought to be inadequate for the promotion of new private housing. Increased private investment would only be forthcoming following a substantial increase in public investment.

The land supply in inner cities was also studied by the report. It was concluded that the amount of land suitable and available for private housebuilding was much lower than generally realised. The reasons for this were the physical nature of sites that became available. Often these would be on confined or

polluted sites where the ownership was uncertain and the land prices too low to encourage the owners to sell.

The report also considers the housing demand and housing needs in urban areas. It concludes that there is a fundamental disparity between the need for low cost affordable housing and the rise in prices caused by demand for new housing from people on higher incomes. This is an important factor in determining the success or failure of urban regeneration schemes. A wide choice of housing stock in good condition is considered essential to the overall aims of creating employment and consolidating the local economy. The report notes that any increase in owner occupation would contribute significantly to economic regeneration. Most areas of urban decay could accommodate a significant increase in private housebuilding. Only in built up core areas with a high population density is there little room for any increase. Housebuilders must therefore seek to be more innovative in their approach and cooperation between all parties must be increased. In particular the report calls for an; adequate supply of land to be made available by the public sector; grant aid to bridge the gap between market price and the cost to build; and improvements in the planning process.

Local Authorities are encouraged to undertake land assembly and to utilise powers of compulsory purchase efficiently as well as to undertake early investment. Furthermore, housing programmes should be initiated and assessed at regular intervals and a comprehensive statement of aims and objectives should be made at both local and national level.

Finally, the report concludes that the environment of urban areas is of utmost importance in renewal. Space must be left for parks, recreation, gardens and community facilities in order to help encourage people to stay rather than move away.

As well as drawing conclusions about the problems of urban decay and suggesting solutions the report sets out specific measures which can be taken. The majority of these recommendations relate to improving land supply, overcoming financial problems, changing housing policy, and creating a planning and repair and maintenance policy. There are other measures, however, directed at the housebuilders themselves. It is recommended that they adopt a positive, innovative role and undertake more research into the housing requirements in inner city areas. They should also be more resourceful in locating vacant suitable land and

they should encourage local authorities to undertake more partnership development and refurbishment for rented accommodation and low cost purchase.

A more detailed approach to the role of the construction industry in urban renewal is considered by Bartlett and Quine in a comparative study of approaches to urban renewal in the U.S.A and the U.K. (1987). In fact the overall approach to urban renewal is broadly similar in both countries. This is unsurprising as much of the U.K. approach has been learnt from success in America. What is of interest is the approach by the U.S. construction industry which does not appear to have been emulated in the U.K to any great extent. The use of "Enterprise Foundations" involves combining development for profit with marginal or non profit making development. The benefits of this include an increase in workload for the industry, increased employment in the industry, increased local facilities, help for Local Authorities and increased investment in the area. The approach is long term and strategic and provides benefits to all concerned.

Possibly the nature of the British economy and construction industry make such an approach difficult to achieve. Bartlett and Quine do, however, make some

recommendations for the U.K. industry. They recognise that there will always remain the traditional role for the industry but that expertise in land availability, finance and in project coordination are areas where a lead can be taken. They recommend that construction should play a coordinating role and "produce a community package with a record of experience and achievement".

The work of the independent commission for the House Builders Federation and that of Bartlett and Quine provide a comprehensive examination of the problems facing urban areas. These are problems which have been discussed throughout this section with reference to different authors in various publications. The independent commission's report does, however attempt to offer some solutions, to these problems. Although most of the recommendations are aimed at local and national policy on a range of matters the report does recognise the need for building companies to react in certain ways. The problem with the commission's report, as far as the this research is concerned, is that it concentrates on only the housing sector of the industry. Understandably, the report gives no recommendations regarding the industrial and commercial sectors of the construction industry. Neither is there an

indication given of responses that have been made by building company.

Such an indication is given by Gates (1985), who presents an overview of the typical responses of housebuilding companies towards urban renewal. The general view of such companies appears to be that urban renewal means low cost housing sold quickly. This is in contrast to the high profile upmarket housing of the London Docklands and construction companies working in the commercial or industrial field where the emphasis is on prestige development. The difference appears to be one of scale. Many housebuilding companies operate nationally and carry out "renewal" work in widely dispersed areas which may not be part of a long term renewal scheme. Such work is often carried out in partnership with local authorities and more often than not the work is procured by specialist divisions of well established building companies. An example of this type of project that of the redevelopment of the docks at Hull (Brimacombe, 1988). This documents a partnership between Hull City Council and Bellway Urban Renewal Ltd. Financial details of the project are given but it is the roles of each partner that are most interesting. The council is responsible for the repair of the dock fabric and the ground preparation.

Bellway are responsible for project management on site, they utilise council offices and have representation on the board of the private company which was set up between the two partners. The housing is all low cost and built by local contractors. In this case Bellway is acting purely as an urban development company.

The use of partnership developments is widespread in urban renewal schemes. The history of partnership projects since 1945 is described by Raggett (1988). In this paper the increasing size and scale of urban renewal since the war is described along with the changing roles of public and private partners. Finally he describes the current nature of partnership projects and forecasts future trends in partnership projects.

> "The context for urban renewal schemes is changing. Public authorities are now seen as facilitators, or pump primers. Major commercial developments are no longer carried out by the public sector, although in the case of new towns, they amy still be under their close direction.
>
> In the future, the major schemes may essentially be under the direction of the

private sector, within a context set by general guidelines from the public sector." (p.196)

Apart from the examples given by Brimacome and the work of Raggett several more instances of partnership work are given by Lancaster (1988). In this paper Lancaster describes the variety of such schemes that have occurred between public and private sectors in the North West of England. Nine projects are described briefly each of which involves a building company in partnership with local public bodies. Lancaster also describes in brief the work of the Salford Pheonix Initiative Limited. The Pheonix Initiative is supported and partially funded by the government although it is an independent organisation which aims to bring together public and private sectors in order to facilitate urban regeneration (Pheonix, 1988). The initiative identifies suitable sites and brings together the parties involved in the process of renewal. Regional Pheonix Initiatives are formed as limited companies with members of the public and private sectors comprising the board. A detailed description of the Manchester Pheonix Initiative is given by Gerrard (1987). The construction industry has a large input into the operations of the local Pheonix Initiatives. In the case of Manchester finance is supplied by the

Building Employers Confederation, the Builders Merchants Federation, the Council of Building Materials Producers as well as the North West Civic trust.

It can be seen that the building industry is heavily involved with partnership projects in urban renewal. It is often the case that building companies are using their specialist skills to develop urban land whilst leaving the construction to be undertaken by smaller local contractors. However, it is often the case that construction and development are undertaken by different divisions of the same organisation. An example of this is the Lovell Group Ltd. who operate several companies including both a development company and a contracting company, (Lovell,1988). Indeed the Lovell Group have gone much further than most by helping to found the Partnership Renewal Of The Built Environment or P.R.O.B.E Ltd. This is an enabling agency aimed at reversing urban decay and is formed from a partnership between Y.J. Lovell (Holdings) P.L.C. and the Halifax and Nationwide Building Societies (Lovell, 1987). It aims to offer a consultant/partner arrangement with landowners and local authorities where large scale urban renewal is required. This in turn supported Lovell Urban Renewal Ltd., Lovell Partnership Homes

Ltd. and, hence, other Lovell subsidiaries as well as smaller local contractors and consultants. Lovell Urban Renewal have acted as the collaborating establishment for the current research project.

2.6 Summary

This chapter has provided both a general background to urban renewal and a more detailed examination of the ways that building companies are now operating in the urban regeneration field. The first part of the chapter identified the causes and concept of urban renewal. This helped define the parameters of the later part of the chapter and the detailed study that follows. The problems that previously limited urban redevelopment were identified by Caudle. These included:

i. The splintered nature of urban land ownership.

ii. Poor communications and transport links

iii.High rates

iv. Development and planning controls

v. Physical factors such as sites with limited access and poor or contaminated ground conditions.

These same points were identified by several authors as the principal inhibitors of urban renewal, in particular by Howes and Lawless. These two authors also described in detail the methods that have been used over the past decade to create an environment that would stimulate regeneration. The success of these policies has led to increasing urban redevelopment and, thus, a greater role for the building industry. It is the role of the building industry that is considered in detail in the latter part of the chapter. The way that building companies adapt to the market place is investigated in detail by Lansley. Although Lansley does not consider the urban renewal market in particular he does envisage increasing innovation by the construction industry.

Having examined the way that building companies innovate in a general way, the chapter then examines more detailed responses and and attitudes towards the urban renewal market. Both Collins' work and the report for the House Builders Confederation identify the aims of the building industry, albeit of different sectors. The H.B.F. report recognises the

need for increased innovation and cooperation between parties. The question of whether or not innovation has occurred is considered by Gates.

In particular Gates identifies the rise in partnership developments and the increasing amount of work being carried out by specialist divisions. An example of the former is given by Brimacombe. The use of specialist divisions is highlighted and documented by the collaborating establishment, Lovell Urban Renewal Ltd. The involvement of companies with urban renewal agencies such as P.R.O.B.E. is also documented by Lovell Urban Renewal Ltd. literature. These are responses that have been well documented and form the basis, along with other possible innovations, of the subsequent investigation. The next chapter uses the information discussed here to help define the parameters of a survey of large building companies and formulate a questionnaire as a means of undertaking this survey.

Chapter 3

Methodology

3.1 Introduction

To achieve the aims of this research it was necessary to collect data on the response of building companies to the rapid growth in urban regeneration during the last decade. This data would determine in what manner, if any, building companies have adapted and are adapting to this form of redevelopment. In order to gain an accurate representation of attitudes and responses from building companies throughout Britain the form of data collection used was a postal questionnaire. Individual case studies were not used as the variety of company sizes and types was too great to ensure that each study would provide representative findings for the whole group. This chapter will, therefore, describe in detail the procedures used to select the data sample and to design and implement the questionnaire.

3.2 Sample Selection

In order to provide representative and reliable evidence of trends and attitudes towards urban regeneration within the construction industry it was necessary to gather as much data as possible from companies operating in the construction industry. As

the sort of data required is not available in the literature reviewed some other method of data collection was needed. Firstly, though, the nature of the sample required had to be determined.

A target population of companies had to be identified from which a possible sample could be drawn. The criteria for selection within the survey are that the company must state at least one of their principal activities as building, building contracting or property development. Companies mainly involved with civil engineering, were not included unless they listed building work as an activity. The reason for the latter criterion is that problems associated with urban regeneration are different for civil engineering companies as they tend to concentrate on the technical difficulties of large scale infrastructure renewal. Thus research has been limited to building and development companies. At present there are over 175,000 undertakings classified as constituent parts of the construction industry (Turner, 1987) It is possible to divide this total into two groups, A and B, according to the size of their organisations.

The group A undertakings employ less than 100 people and account for 50% of the total construction

industry turnover. This group accounts for 99.2% of construction industry undertakings. The group B undertakings employ 100 or more people and account for the remaining 50% of construction industry turnover. This group accounts for 0.8% of construction industry undertakings.

Therefore, in Group B, approximately 1400 companies account for 50% of the industry's turnover. It was decided that a study of this group alone would be required for three reasons. These are:

i. This group is obviously a highly influential sector of the industry as it contains a relatively small number of companies accounting for a disproportionate amount of construction industry turnover.

ii. The companies accounted for within this sector are large enough to accommodate organisational change as a result of external influences. It was expected initially that there would be some adaptation made by companies as a result of the special circumstances created by urban regeneration projects.

iii. The undertakings accounted for in Group A in

general represent self employed builders, small specialist subcontractors and building materials suppliers. It was intended from the outset that the study would relate only to those companies working as building contractors, speculative builders or property developers.

Following this initial definition of the target group a sample had to be selected which was representative of this group. The sample could be selected on the basis of either turnover or the number of employees. After careful consideration the following factors were used to determine the basis and size of the sample:

i. The breakdown of the original total of construction undertakings was based on the number of personnel employed by the organisation. It was, however, intended that any analysis should be carried out on the basis of actual turnover. Findings could then be related to the actual amount of work being carried out by the industry as a whole. Therefore, as the initial breakdown was based on employee totals, the figure of 1400 was arbitrary as far as determining a sample was concerned. However it did identify a group of companies on which an analysis related to

turnover could be based, as there is a strong correlation between the number of people employed by an organisation and the turnover of that organisation.

ii. In order to obtain a reliable analysis of the attitudes and innovations of building companies to urban renewal it was important to sample as many companies as possible. This is because due to the varied nature of building companies a small sample would have led to potential problems in determining whether the sample was representative or not. Also, the method of delivery had to be considered. A postal survey would inevitably lead to a limited response rate but time and cost considerations precluded the use of face to face interviews if any more than 50 companies were to be examined.

iii. An examination of turnover figures for the largest 1400 companies showed a sharp fall in turnover over the first 100 companies followed by a levelling off. The majority of companies accounted for between £4m and £20m p.a. turnover (Fig 3.1). Therefore with the exception of approximately 100 companies there was little

variation in size of turnover over the group of 1400 companies. Thus findings based on a sample size of 1000 would have little difference to those for the full population as long as the largest 100 companies were included.

Data on the largest 1000 construction companies were supplied by Inter Company Comparisons Ltd., a firm of consultants specialising in supplying commercial information. Their brief was to supply a list of the largest 1000 construction companies

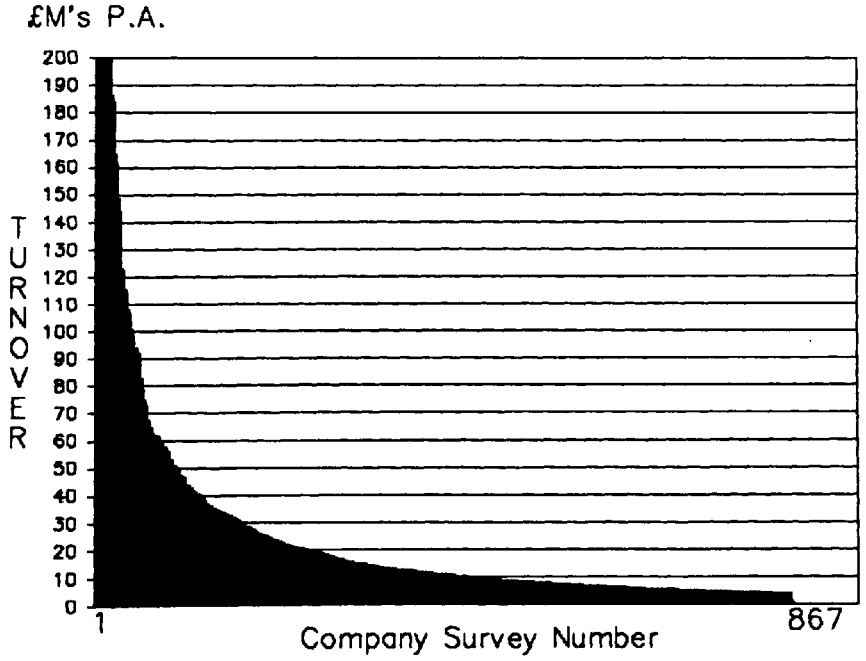


Figure 3.1

ranked by turnover and to include, a registered address, the latest figure for company turnover and a

brief description of company activities. The purpose of this last item was to ensure that companies which did not comply with the previously established selection criteria could be eliminated from the list at a later stage. The information, which was supplied on disk as an ASCII data file, was transferred onto "P.C.-Files+" version 1.0 by Buttonware Inc.

Using the description of activities provided by I.C.C. Ltd. it was possible to systematically eliminate those companies which which did not comply with the selection criteria descibed earlier. The final sample size was thus, further reduced from 1000 companies to 867 companies.

3.3 Operational Aims And Information Selection

It was necessary to design a questionnaire capable of gathering the information required in a clear and concise way. Fink and Kosecoff (1985) and Oppenheim (1966) provide clear guidance regarding the design and implementation of questionnaires. Firstly, it is important that the operational aims of the questionnaire are determined and stated. In this case the operational aims are as follows :

i. To characterise the general nature of responding

companies so that classifications may be made regarding the size, turnover, organisation and activities of responding companies.

ii. To determine the nature, location and extent of projects currently being carried out by responding companies in areas of urban redevelopment.

iii. To establish the importance that responding companies attach, to the urban regeneration market, to the possible need for positive change within their organisations, and to the changes that have already occurred regarding their role in the development process.

iv. To ascertain whether any of the responding companies have responded in a positive way to the needs of the urban renewal market and, if so, to determine what these responses consist of and what are their advantages.

In order to achieve these operational aims certain types of information were required:

i. General information that would provide a profile of each company's operations. Information was

required about the responding company so that classifications according to company type could be determined at the analysis stage. The questions in this section asked for company name and address and approximate group turnover for the previous financial year. Questions were asked about the primary activities in which the company were involved and which of these activities provided the greatest annual turnover and pre-tax profit. Further questions included the regions of the U.K. in which the work is carried out, the distribution of this work and any other secondary activities. Finally questions were asked about the structure and organisation of the company. One of the problems of investigating construction companies is that while many are single organisations others are subsiduaries of large conglomerates. Thus, it was important to determine the basic structure of each company in order to generally classify it. However because the questionnaire was effected using the postal system questions had to be kept as simple and straight forward as possible to encourage completion. As a result the questions relating to company structure were not as detailed as they might have been which placed some constraints on the extent of this particular classification.

ii. More detailed information was required in order to identify the exact nature of current work being carried out by the company which involved some element of property development and/or commercial, industrial and domestic building activities. The individual questions were designed to determine :

a. The number and extent of Urban Development Corporations that firms were involved with.

b. The nature of any work carried out in urban areas, and the type of work which this involved (i.e. new domestic, refurbishment etc.). c. The extent to which grant aid is being utilised (See Appendix A for exact details).

c. The extent to which grant aid was being utilised.

iii. Measurements of corporate attitudes to urban regeneration were required in order to evaluate the importance of and possible responses to urban regeneration. Information required included respondents past experience of renewal, their

forecasts for the next decade, the location and extent of current renewal work and the locations expected to provide most renewal work in the future. Further questions determined the nature of renewal work and the respondents opinions regarding current and future importance of regeneration. A further series of ten questions used attitude scales to establish the extent to which a respondent agreed or disagreed with a given statement. These statements were designed to cover as many aspects of regeneration work as possible in a clear and concise manner and thus provide further evidence of attitudes to renewal.

iv. Detailed information was needed about the extent of current urban regeneration work in order to examine the nature of any responses that may have been made to urban regeneration by the organisations. Various questions provided a full range of possible responses that may have been made by the company. Further questions, which sought the opinion of respondents on particular matters relied upon a written response, as they could not be easily formatted at the design stage. These questions were intended to provide qualitative data to reinforce the quantitative data gathered by the rest of the questionnaire.

There were three qualitative questions requesting information and opinions on:

a. The advantages of a positive response to urban renewal.

b. A description of these responses, and whether any response has been made.

c. The reasons for the actions of the respondent.

v. Finally, information was needed that was devoted purely to feedback about the questionnaire itself. The purpose of this was to identify any major faults or ambiguities within the questionnaire which may cause confusion to the respondent. There are two reasons why it is important to avoid confusion. Firstly, the respondent is more likely to complete and return the questionnaire if it is simply and clearly laid out and the questions are straightforward and to the point. Secondly, when analysing returned questionnaires it is important to ensure that each individual question has been answered in the same way by each respondent i.e. that all respondents have understood the same thing from

the question, and answered accordingly. If this is not the case then the analysis becomes unreliable. By including this section at the end it is possible to identify which questions if any caused problems and, therefore, which questions would need special consideration during analysis. As an extra safeguard several of the most important questions were repeated in different forms within the questionnaire. This was in order that if confusion arose over the first form of the question, in its second form the information would still be available for analysis. In the event this situation did not arise in the final study although very slight differences in responses were detected when the same question was differently phrased. This point is further discussed in the next chapter.

3.4 Questionnaire Design

The layout of the questionnaire form was designed to correspond with the operational aims, and each section within the questionnaire related directly to each one of these aims. The questions in each section were tailored to achieving each particular aim. Three types of questions were used in the questionnaire,

closed ended questions, open ended questions and attitude scale questions. Closed ended questions eventually formed the predominant question type. The reason for this is that it is generally accepted that this type of question is both more reliable and more efficient than other types. In relation to this question type Fink and Kosecoff stated that :

> "The overwhelming majority of surveys rely upon multiple choice or closed ended questions (also called 'forced choice') because they have proven themselves to be more efficient and ultimately more reliable. Their efficiency comes from being easy to use, score, and code (for analysis by computer). Also, their reliability is enhanced because of the uniform data they provide, since everyone responds in terms of the same options."
>
> p.26

Unfortunately, because of the information required, it was not possible to design all questions as closed ended and so some questions had to be left open ended. These questions either asked for some numerical data or for some written comment. The former could be analysed easily but the latter would pose some problems as far as statistical analysis went. The open questions related to values on an open

ended scale, eg. those related to the number of employees and various turnover figures that were requested or to questions relying upon a written response. It was decided to include the latter type of question in order to provide qualitative data.

The final type of question used was the Likert scale (Likert, 1932) or attitude scale. Questions of this type proved extremely useful in determining the attitudes of responding companies to Urban Renewal. They consisted of a short statement or question followed by a numerical scale against which the respondent was asked to mark the extent of his feelings towards statements such as; agree or disagree; important or unimportant. The method adopted for the construction of Likert scales and their layout was that reported by Dixon, Bouma and Atkinson (1987) and also de Vaus (1986). A major problem in designing the questions was whether to use a forced response scale or allow respondents to mark their opinion as undecided. After considering the nature of the questions it was decided that a scale of one to five should be used thus allowing respondents to remain undecided. This was because to have forced a positive or negative response would

possibly bias the results. Also, it was intended that the questions would be sufficiently clear and straightforward to easily elicit opinions from respondents.

Initial design of the questionnaire took place during the second quarter of 1989 and was accompanied by detailed discussions with Mr. J. Lye of Lovell Urban Renewal Ltd. regarding the types of questions that needed to be asked and the terminology that could be included. Further discussions were held with Dr. Eira Williams of the Polytechnic of Wales covering the layout and design of the questions to be included. This was complemented by reference to various publications regarding social science research methodology and questionnaire design. In particular the work of Mann (1985), Weisberg (1977) and Sudman and Bradburn (1982) were useful in this respect.

Upon completion of the initial draft the questionnaire was circulated to several members of the Department of Civil Engineering and Building at the Polytechnic of Wales, with experience of research and/or construction company activity, for comments. A second draft was prepared taking account of these comments. Following further discussions with Lovell

Urban Renewal Ltd. a pilot study was undertaken in order to assess the effectiveness of the questionnaire as a data gathering tool. Five companies were selected two of which were located in the South Wales area. The remaining three were selected at random from the survey data. The two South Wales companies were contacted and arrangements were made to complete the questionnaire on a face to face basis. By doing this any faults in the questionnaire could be raised immediately and noted by the interviewer. The remaining three companies were posted a copy of the second draft questionnaire and a covering letter explaining its purpose. All three questionnaires were returned completed and with comments. Using these comments and the results of the face to face interviews the second draft questionnaire was modified slightly and a final draft was produced. A copy of this is included in Appendix A.

Although the pilot study of five companies was rather small, and thus could not hope to detect all the potential problems that might have existed with the questionnaire, it was expected to detect any major anomalies. Also the nature of the construction industry is such that no two companies are alike and a very large pilot study would have to be carried out

in order to accommodate all the different types of construction company included in the final survey. This was considered unnecessarily cumbersome as it would mean repeating the process again during the final survey. In fact the final questionnaire was generally well received, and although a few problems did arise (which are described in the next chapter) the response rate was very satisfactory and no major anomalies occurred.

The full survey was carried out in the last quarter of 1989. All 867 companies were surveyed over a period of six weeks between September 19th and November 21st. Due to the large number of companies involved in the survey it was decided to carry out the survey in four batches. The questionnaires were forwarded with a covering letter describing the purpose of the research together with a prepaid return envelope. The covering letter gave a return date of two weeks after posting, for each batch. This period is recognised as the optimum return period as it is long enough to be convenient for the respondent and yet short enough to induce a sense of urgency in the respondent. If after the return date had passed, a company had still not returned the questionnaire a period of one week was allowed before a reminder was sent out including a second copy of the form and a

prepaid return envelope. The reminders also allowed a two week return period. If a completed questionnaire was not received by the date stated in the reminder no further letters were sent and the company was deemed not to have responded. In the event questionnaires were still being received well after the return dates, and these were, of course, included in the analysis. The four batches were posted at weekly intervals and as each batch had a total possible return period of five weeks the total survey period was nine weeks.

Several techniques were used in an attempt to maximise the response rate. These included the use of pre-paid return envelopes and the written reminder. Although the effectiveness of the prepaid envelopes is hard to assess the reminders appeared to be highly successful. A response rate of approximately 15% was achieved from the first letter. However the response rate increased by an additional 10% after the reminders were sent out. Other methods of response maximisation, described by Oppenheim, included in the survey were:

i. All the firms were promised confidentiality and anonymity.

ii. A pledge was made that no information regarding any one company would be published. The effectiveness of this promise is hard to gauge as several companies refused to complete the questionnaire on grounds of company policy and one company thought that the information required was of too confidential a nature to disclose.

In addition a further technique was used in the covering letter and the reminder. By stating the return date in terms of both day and date the response can be increased (see Oppenheim). The stating of the day of the week would appear to be a significant memory jogger in comparison with a date written in figures.

One problem that should be mentioned at this point that may have had a negative effect upon the response rate is the occupation of the person completing the questionnaire. Because the survey was so large it covered many different types and sizes of construction company. This raised the problem of, firstly, who to address the letter and form to and, secondly, specifying who should complete the form. Eventually it was decided to address the form to the 'Managing Director' since, although some firms may not have a Managing Director as such, the letter

would be passed to someone with equivalent status within the organisation. However, it would be too much to expect only Managing Directors or equivalent to complete the questionnaire. Therefore, it was stated in the covering letter that the form should be completed by someone within the organisation with a good understanding of company policy. This may possibly have invoked limited response, insofar as the target completers would have to be middle to senior managers and were thus likely to be very busy people. However this potential hindrance to response was considered acceptable as it was felt preferable to have a limited amount of accurate information than a large amount of possibly inaccurate information.

3.5 Summary

This chapter has outlined the process of investigation used in this research. The use of a postal questionnaire survey was identified as the most practical method of data collection. The initial aims of the research were then used to help define a section of the construction industry that should be examined. The resulting investigation examines the largest 867 companies carrying out building work in the U.K.

Following this a more detailed set of operational aims was defined. These aims were then incorporated into the questionnaire design. Each section within the questionnaire was designed to achieve one of the operational aims. Detailed questions within each section were devised using a variety of question types. The subject matter of the questions largely related to the findings of the literature discussed in chapter 2.

The survey itself was first piloted to a limited number of companies and advisors before the full survey was carried out. Various methods were then used to maximise the response rate to the questionnaire. This success of this is discussed in detail in the following chapter along with a detailed analysis of the results from the questionnaire.

Chapter 4

Analysis Of Results

4.1 Introduction

This chapter presents a detailed analysis of the results obtained from the questionnaires. Each of the questionnaires contained 175 variables and there were 209 completed cases. Therefore, the number of statistical relationships which can be presented is very large. As a result, only the responses themselves, and the relationships which contribute significantly to acheiving the original aims are considered in this chapter. A full set of all the statistical and numerical data is, however, presented in Appendix B for reference.

Firstly, descriptive statistics for each variable are examined. These consist primarily of frequencies of response and in some cases means, ranges and cumulative totals. The statistics discussed will generally be for the entire group; however, in some cases subsets will be examined individually. Wherever possible the implications of varying results between subsets will be discussed fully.

Following this an examination will be made of selected relationships between variables and the significance of these relationships will be discussed. Correlations are used extensively in this

section to determine possible relationships.

Thirdly, an examination will be made of the variation of responses that occur between different groups occurring within the sample. These fall into three categories:

i. Variations according to company turnover.

ii. Variations according to the companies response to urban renewal.

iii. Variations according to company activity.

Finally, a summary will be made of the results and those that are considered important will be highlighted.

4.2 Descriptive Statistics

This section will examine each variable in turn throughout the questionnaire section by section. For each variable a selection of descriptive statistics will be given. The selection of the descriptive statistics will depend upon the nature of the data contained within the variable. These data may be of two types i.e. continuous data or discrete data (see Norisus, 1988). The two types of data are discussed below.

Continuous data contain a range of values that is not fixed. For example the variable A4 (turnover) supplies continuous data. For this form of data the following descriptive statistics are used :

i. The range of values.

ii. The cumulative value

iii. The mean value. This is the cumulative value divided by the number of cases.

iv. The median value. This is the mid point in the range of values and thus has an equal number of scores both above and below it.

v. The standard deviation. This is a measure of dispersion. i.e. it indicates the amount by which observed values differ from the mean value.

vi. Measures of the shape of a distribution. It is useful to be able to describe the shape of a distribution in order to illustrate particular trends. The measures used here are skewness and kurtosis. Skewness is a value which indicates the degree to which a distribution is skewed towards one end of the scale. A negative skew indicates

that the tail of the the distribution is towards the lower values. A positive skew indicates that the tail is towards the higher values of the scale. Kurtosis is a value which indicates the degree to which the distribution is clustered about certain points on the scale, in comparison with a normal distribution. A positive value of kurtosis indicates that the distribution is more peaked than normal. A negative value indicates that the distribution is flatter than a normal distribution. A normal distribution is a bell shaped, symmetrical distribution of values. Many distributions in both nature and society are normal e.g. human height and weight. For a normal distribution the values of skewness and kurtosis are both zero.

Discrete data are data which have a limited number of values. These values may have nominal or ordinal properties. An example of discrete data is found with variable QA4 (the activity which provides the greatest annual turnover) For this form of data it is sufficient to provide the frequencies of each possible response. These can then be expressed as percentages of the total sample. However, a problem can arise with variables when several respondents do not answer a particular question and data values are

missing. Where this happens a "valid percentage" is used that takes account of the missing values. This valid percentage is calculated automatically by the statistical analysis software.

For both forms of data it is important that the statistics calculated from the sample can be related to the population as a whole. In this case the population consists of the 867 companies which were included in the survey, and the sample consists of the 209 companies that responded to the questionnaire.

Because of the variability in the population it is not possible to relate the statistics found from the sample directly to the population with complete confidence. However, it is possible to give a measure of confidence that the value of a variable for a population is located between certain intervals. Traditionally a level of confidence of 95% is acceptable and this value is used for each suitable variable in this analysis. These confidence limits are given, for all appropriate variables, in Appendix B.

4.2.1 Results From Section A Of The Questionnaire

This section of the questionnaire provided background information on companies completing the questionnaire. The results from this section can be used to provide a detailed picture of the nature of the companies in the sample studied.

The distribution of turnover across the companies surveyed is given in Figure 4.1. The data for this Figure was obtained from question A4 (QA4) on the questionnaire. Respondents were asked to supply their latest available figure for annual turnover. Of the 209 companies included in the analysis, 194 provided data for this variable. These companies accounted for a total turnover of £11.46 billion per annum (B p.a.). The mean value for turnover was £59.06M p.a. This value should however be treated with caution as an examination of Figure 4.1. shows that turnover was dominated by a few companies with the majority of firms operating at a much lower turnover value. This Figure shows the actual values of turnover for each of the 209 companies in the sample.

A more meaningful statistic is the median value of £20M p.a. especially when it is considered that turnover ranged from a minimum of £3M p.a. to a

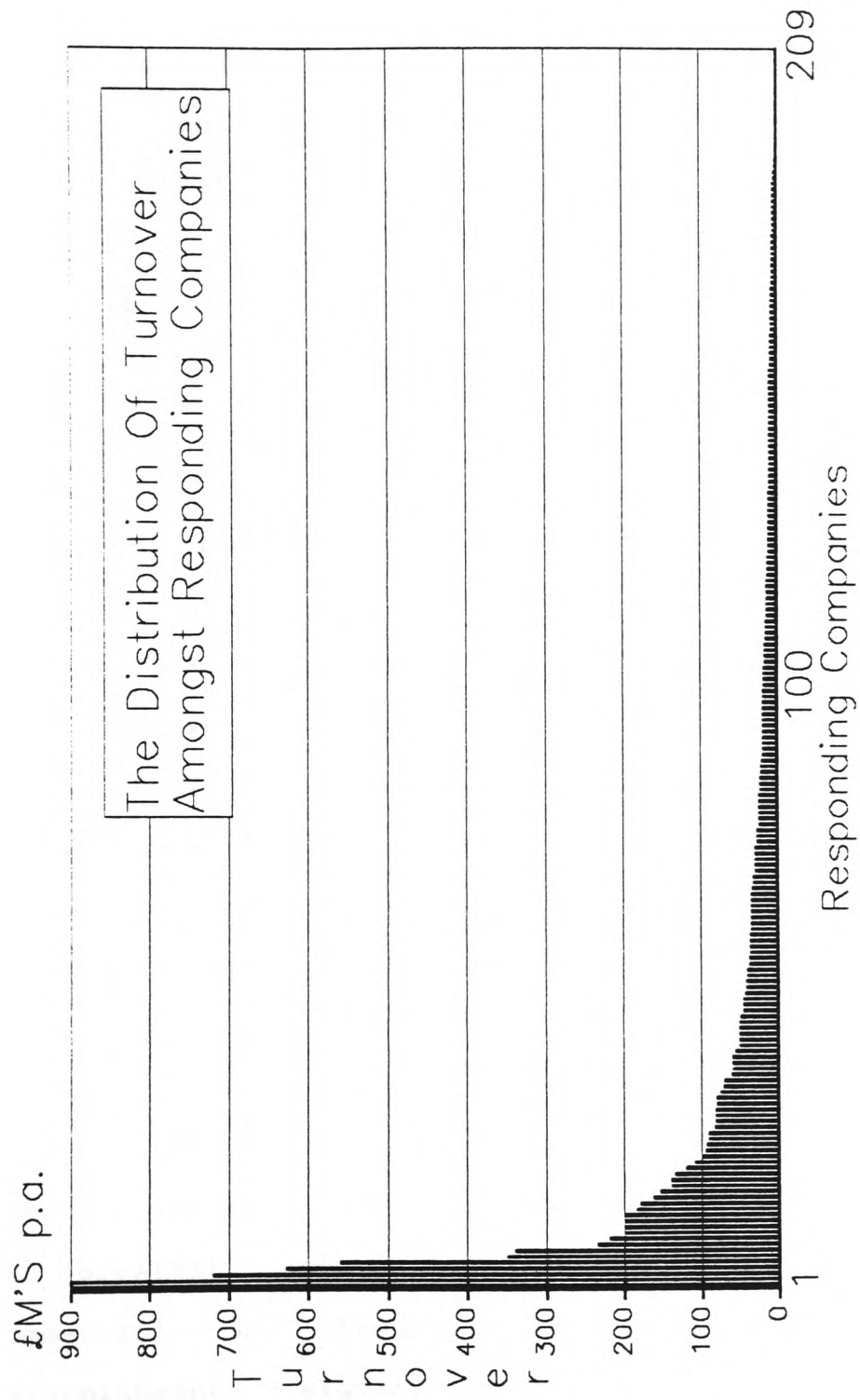

The Distribution Of Turnover
Amongst Responding Companies
£M'S p.a.
900
800
700
600
500
400
300
200
100
0
Turnover
1
100
209
Responding Companies

Figure 4.1

maximum of £988M p.a. This very large range produces a large dispersal of values about the mean with a standard deviation of £129.58M p.a. This confirms that the dispersal of values is very large and is as might have been expected from the range. In fact, the shape of the distribution of turnover can be expressed by carrying out both a Kurtosis and a Skewness calculation.

For the distribution of turnover skewness was calculated to be 27.89 and kurtosis was calculated to be 4.97. It is possible to say, therefore, that this distribution is more peaked than normal and has a long tail containing the larger values. Clustering tends to occur around the lower values with the modal value of £10M p.a. being the peak value. The results indicate that the distribution of turnover amongst responding companies is not a normal distribution.

Figure 4.2 shows the distribution of company involvement in the selected primary activities (QA5). The greatest degree of involvement was in domestic, commercial and industrial building along with refurbishment. A significant number of companies were also involved in property development. Of the 209 responding companies 208 provided data for this question. Of these companies 158 said that they were

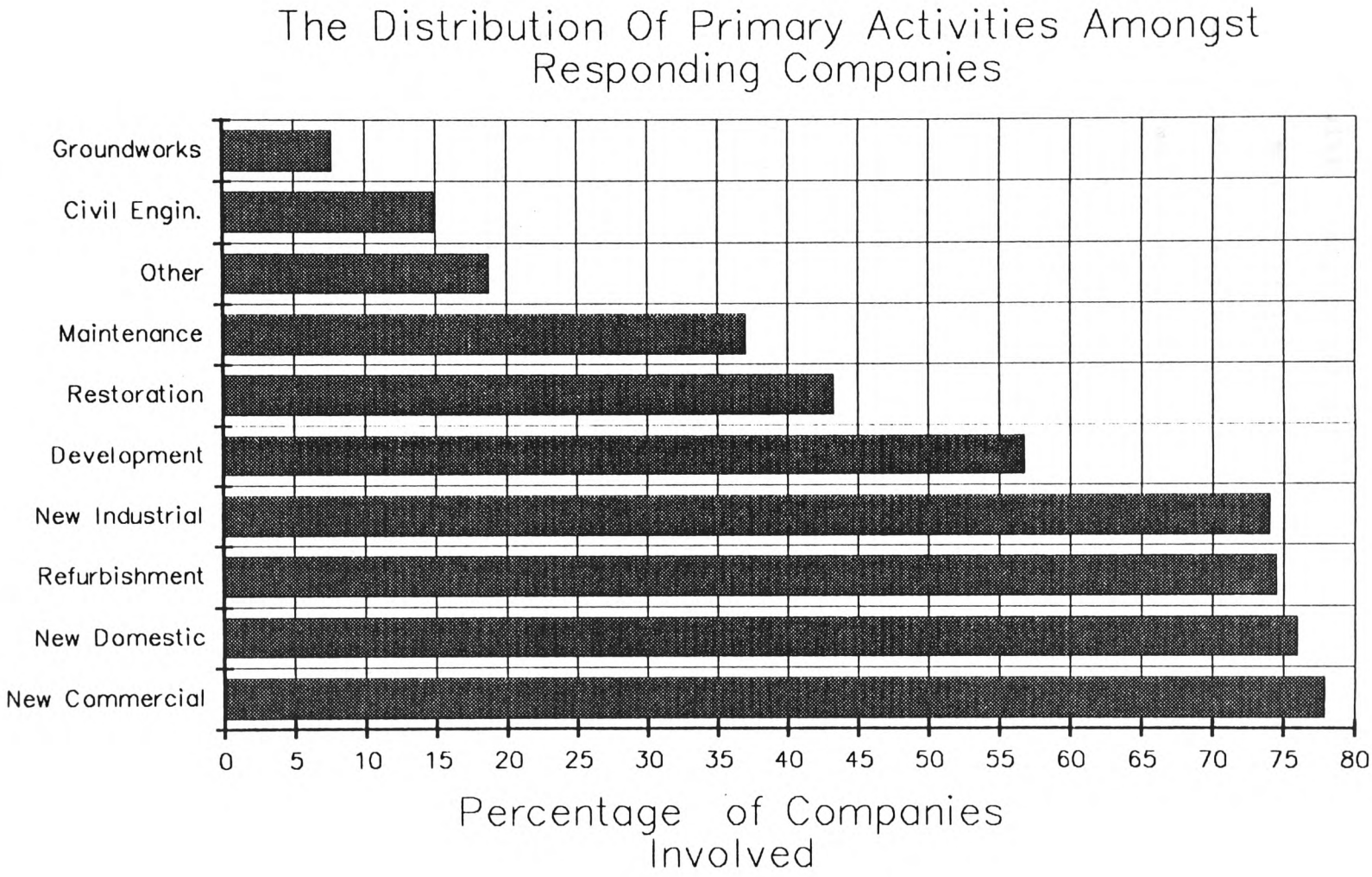

The Distribution Of Primary Activities Amongst Responding Companies
Groundworks
Civil Engin.
Other
Maintenance
Restoration
Development
New Industrial
Refurbishment
New Domestic
New Commercial
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
Percentage of Companies Involved
Primary Activities

Figure 4.2

involved with domestic construction. This is 75.6% of the total number of responding companies. Commercial building was undertaken by 77.9% of the respondents with 74% undertaking the construction of industrial buildings. Refurbishment was carried out by 74.5% of companies and property development by 56.7%.

Several activities were carried out by less than half of the companies. These were restoration (43.3%), maintenance (37%), piling\foundations (7.7%), civil engineering (14.9%) and "other construction work" (17.3%).

These results illustrate the distribution of primary activities undertaken and show the dominance of building companies in the survey. Figure 4.3 shows the distribution of companies in relation to the primary activity which realises the greatest annual turnover (QA6). The results of Figures 4.2 and 4.3 show close correspondence, indicating, not surprisingly, that the primary activity in which a company is involved is also the one which produces the greatest turnover, and that firms tend to concentrate on a small number of activities rather than through broad diversification. Unlike the results of Figure 4.2 this variable does not provide information on all the work that is carried out and

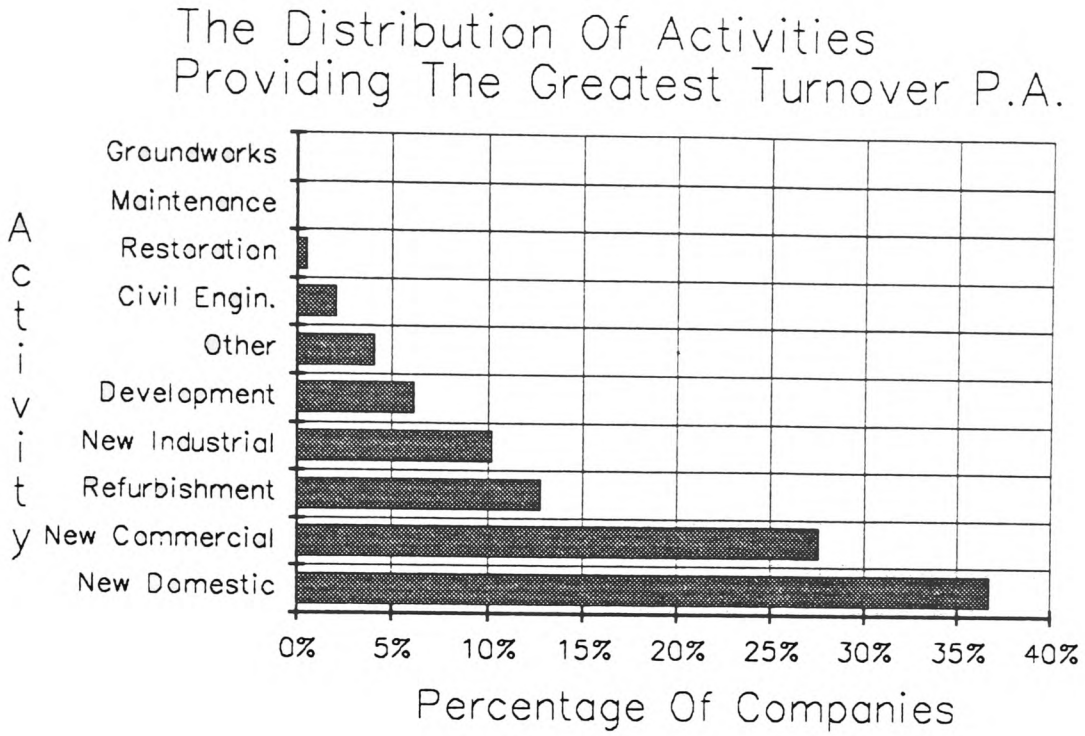


Figure 4.3

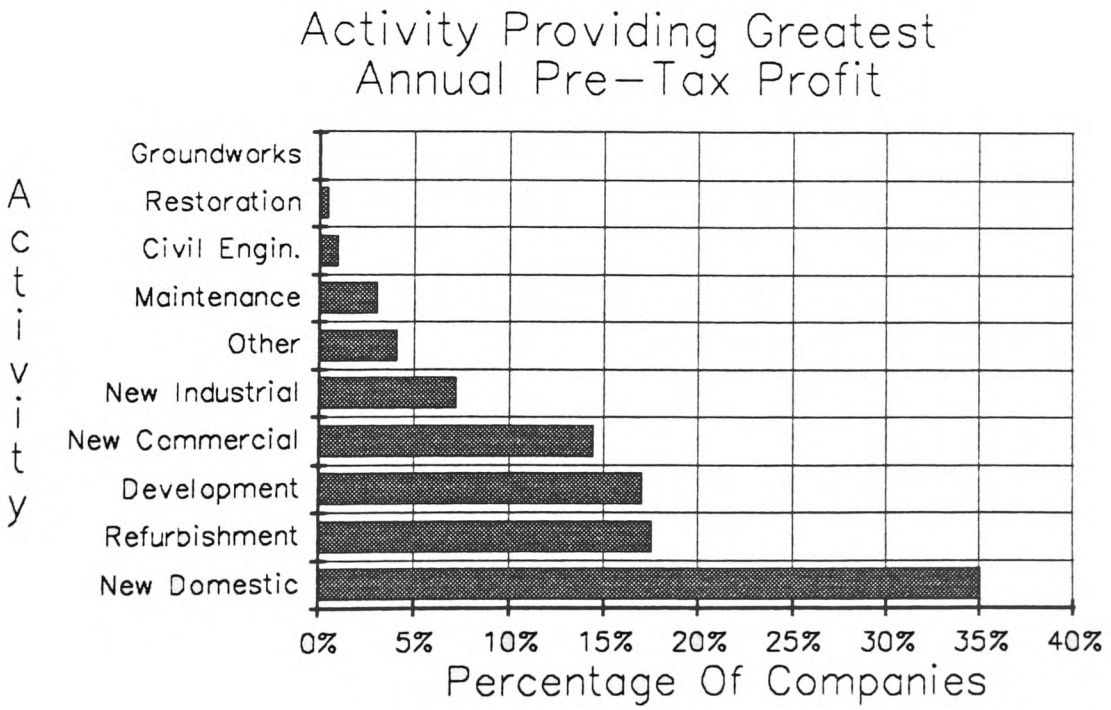


Figure 4.4

it cannot therefore be used to show the distribution of the different activities.

The results (Figure 4.3) show that 93.1% of companies described one of the following group of new domestic, commercial or industrial building, property development or refurbishment as their main activity in relation to turnover. Domestic construction alone is listed by 35.1% of companies as their main activity judged on turnover. Taken with the results from the previous section this indicates that the targeting of building companies, as described in Chapter 3, as opposed to consultancies or civil engineering companies, was successful. The results obtained will, therefore be relevant to the sector of the industry that it was intended to study.

Variable (QA7) examined the distribution of companies in relation to the primary activity realising the greatest annual pre-tax profit. The results of this variable are shown in Figure 4.4 and, as might be expected, they are similar to the results shown in Figure 4.3 of the distribution of companies in relation to the activity providing the greatest annual turnover.

The previous three Figures relate to the principal

activities undertaken by a company. Figure 4.5 shows the distribution of the companies' involvement in the selected secondary activities (QA8). The results show that the provision of services and plant hire services are the most widespread ancillary activities carried out by the responding companies (22.8% and 21.3% of companies respectively). These were followed by the provision of concrete, cement, asphalt and aggregates (approximately 10% of companies carried out each activity).

Figure 4.6 relates to the regional distribution of responding companies (QA9). It is important to understand the distribution of the responding companies in order that regional differences can be accounted for in the analysis. It is also useful to compare the distribution of all work with the distribution of purely urban renewal work. This is discussed in more detail in Chapter 5.

Figure 4.6 shows the distribution of current work by the responding companies within the 12 geographical areas specified in QA9. This shows the dominance of the S.E. of England and Greater London. Of the 209 companies in the survey 208 provided data on the regions in which they operated. Some were truly national companies carrying out work throughout

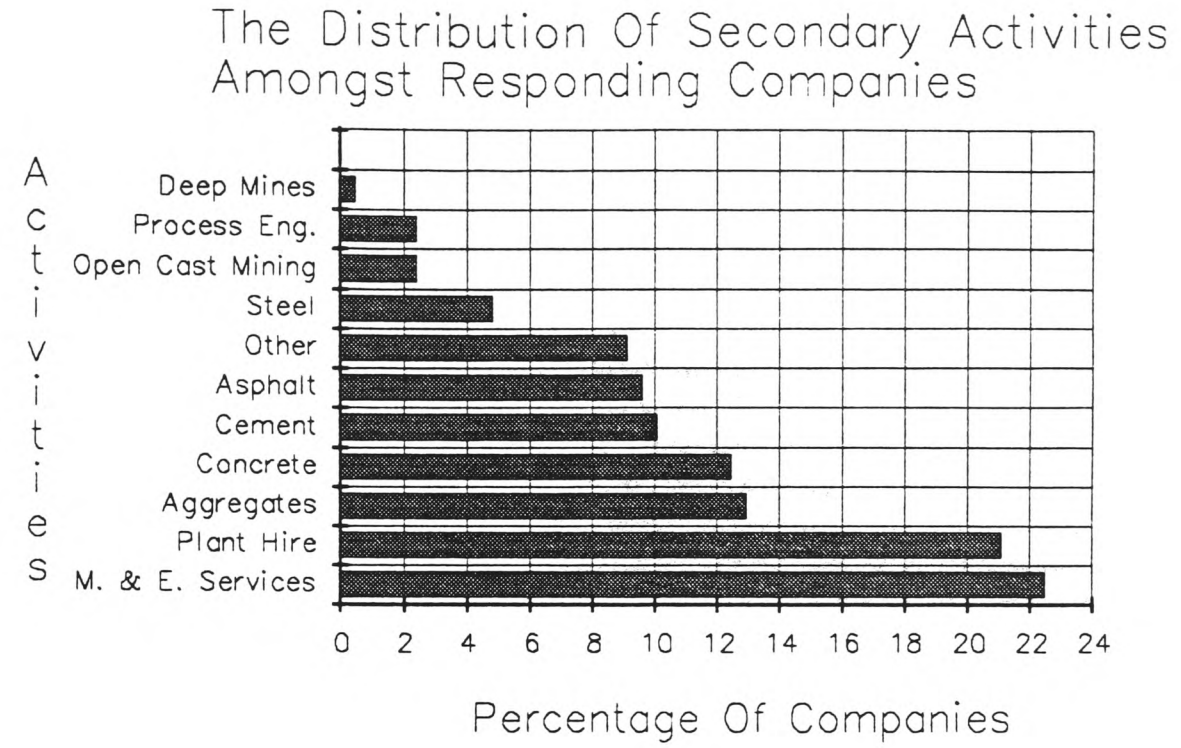


Figure 4.5

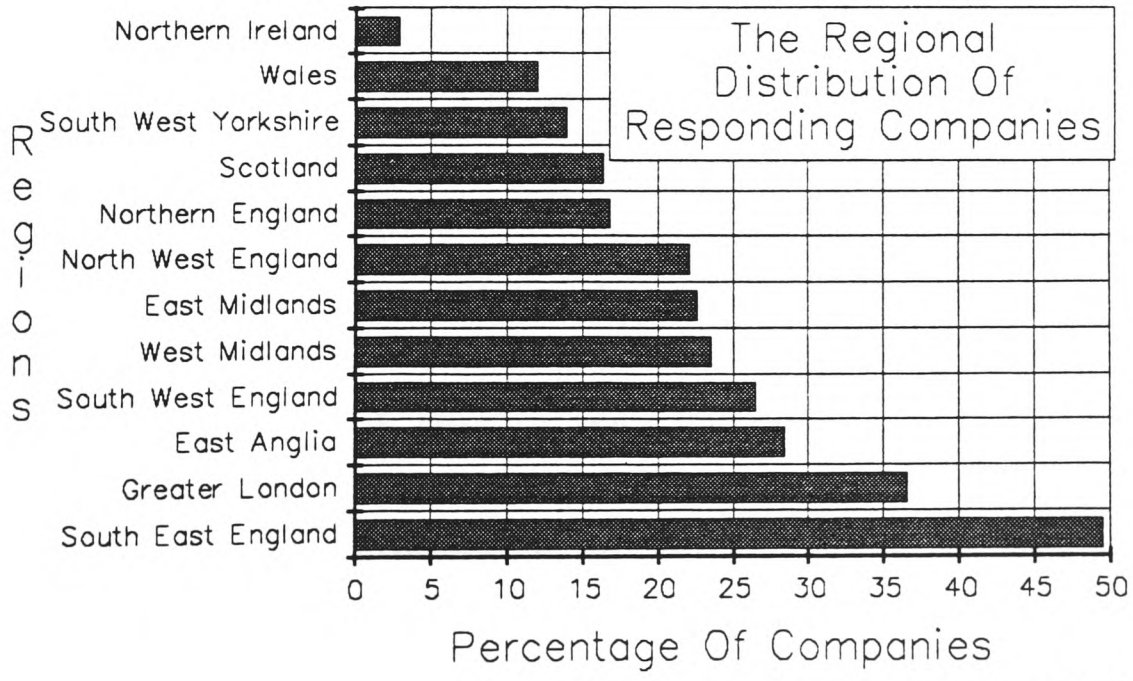


Figure 4.6

the U.K., others were confined to a few or even only one region. The distribution is, however, dominated by the S.E. of England with 49.5% of respondents engaged in work in that region. London followed with 36% of the companies working in the Greater London area. The other regions then varied between 28.4% and 12%. The exception was Northern Ireland as only 6 companies, or 2.9%, carried out work in this region. This was to be expected as the situation in N. Ireland carries particular risks for building companies operating there and the province is geographically separated from the remainder of the U.K.

The dominance of the S.E. and Greater London is even more marked when an examination is made of the regions providing the greatest turnovers for each company. Figure 4.7 shows the distribution of companies, according to the region providing the greatest turnover (QA10). It establishes that 22.7% of the responding companies obtained more of their work in the S.E than in any other region. This was followed by 18.2% for Greater London. Together the S.E and London provided 40.9% of responding companies with their greatest regional turnovers.

This predominance by the S.E. was to be expected

and confirms that this region dominates the U.K. economy with regard to building work, as it does in many aspects of the economy.

The importance of understanding the basic structure of the responding companies was emphasised in Chapter 3. It was anticipated that specific responses made by companies towards urban renewal may have been determined by the existing corporate organisational structure. However, the use of a postal questionnaire limited the amount of detail that could be gained about corporate management systems. The questions had to be kept simple and straightforward to avoid confusion. As a result only three basic questions could be asked with a reasonable assurance of receiving accurate replies.

The first two of these questions (QA11 and QA12) concentrated on the status of responding companies. It was important to know which of the responding firms were parent or controlling companies and which were subsidiaries. The results showed that 54.1% of the responding companies were subsidiaries the remainder being parent companies or companies not forming part of a group, i.e. single entity companies.

A further variable (QA13) examines the way that the responding companies were divided. Five options were provided, these were:

1. Regional divisions
2. Activity related divisions
3. Divisions based both regionally and according to activity
4. Single organisation
5. Other

The distribution of the various management structures is shown in Figure 4.8 in the form of a pie chart.

Most companies, (32.2%), described themselves as single organisations. This was followed by activity related divisions (28.2%), regional divisions (19.8%), both regional and activity related divisions (15.8%) and "other" (4%).

Finally, in Section A of the questionnaire, variable QA13 examined the number of staff employed by responding companies. This measure would give an alternative method of assessing the size of companies in the survey. The results of this variable are displayed in Figure 4.9.

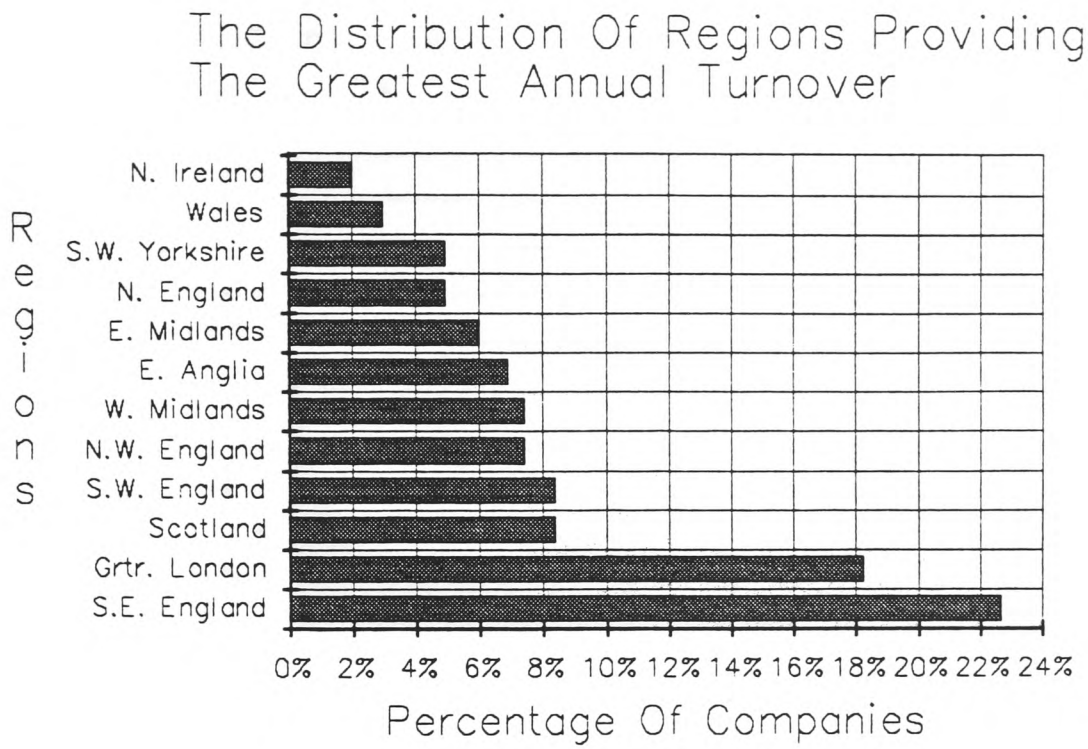


Figure 4.7

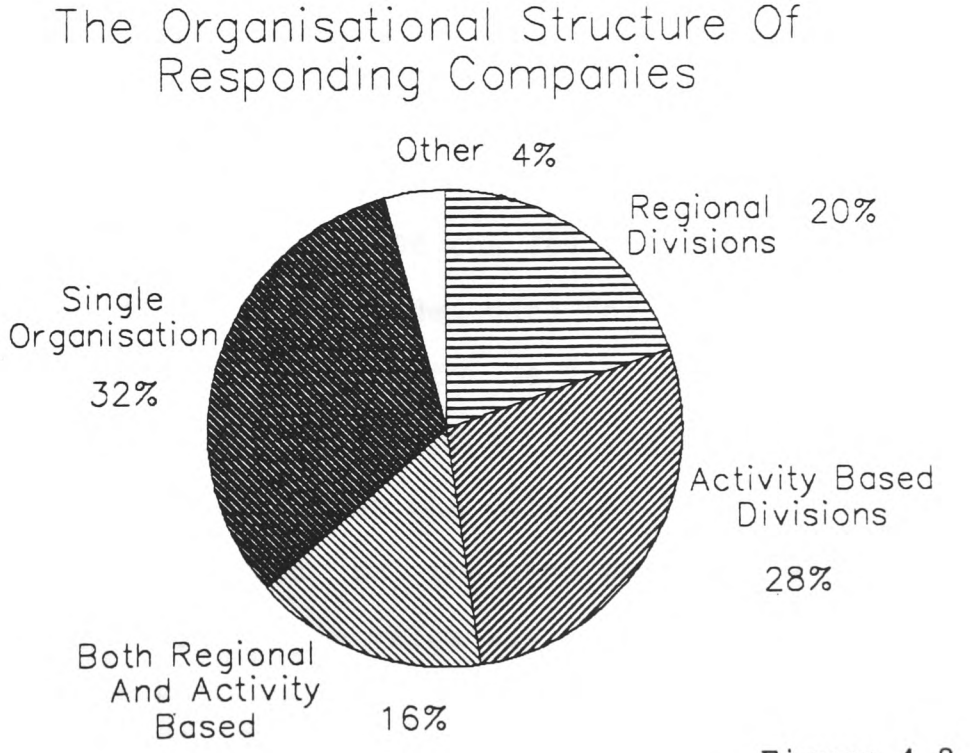


Figure 4.8

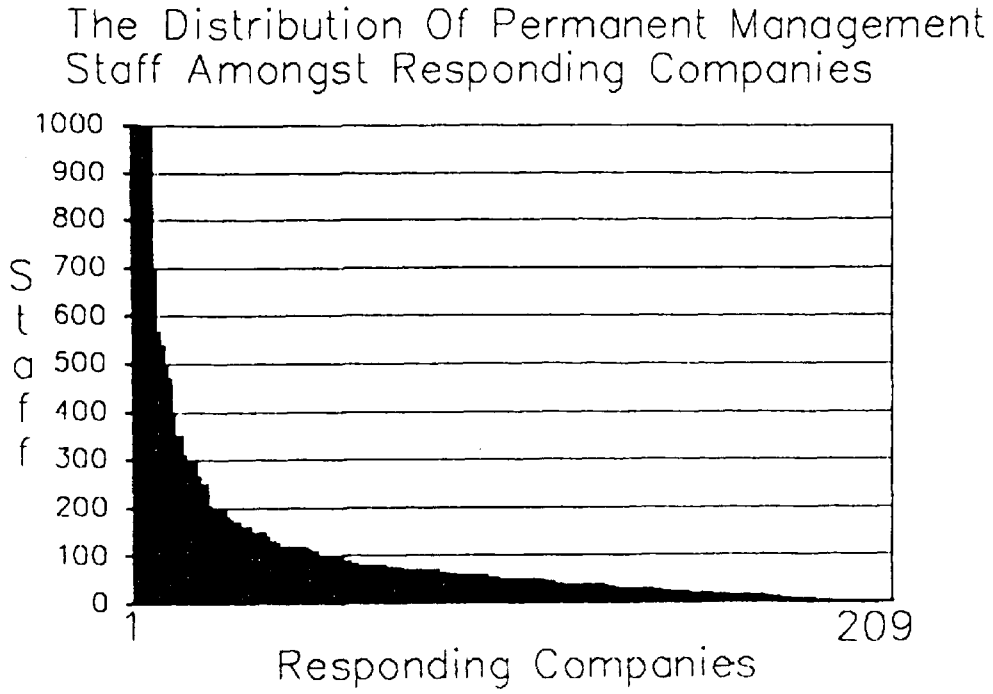


Figure 4.9

As might have been expected the distribution is similar in many ways to the distribution of turnover for each company with a few companies employing a large number of staff. Of the 209 companies included in the survey 200 provided data for this variable. These companies accounted for 36,249 permanent staff. The range varied from 13,000 to less than 10. The mean figure was 181 but the value of this statistic must be considered in the same way as that for turnover. The median value was 58 and the mode was 50. These latter statistics would appear to be better indicators of average staffing levels.

It is also possible to compare the shape of the distribution of staffing with the distribution shape for turnover. The skewness of the distribution was calculated to be 12.91 i.e. the tail of the distribution is towards the larger values. This is similar to the turnover distribution only in this case the skewness was more marked. The value for kurtosis was calculated to be 175.323 i.e. the distribution is leptokurtic. Again, there is some similarity with the distribution of turnover which was also leptokurtic but in this case the value of kurtosis is much greater indicating that the distribution is highly peaked. The results indicate that staffing levels are not at all normally distributed in this sample.

4.2.2 Results From Section B Of The Questionnaire

This section was intended to examine in detail the nature of current work being carried out by the responding companies which involved some element of commercial, industrial or domestic building or property development.

Over the last decade a number of Urban Development Corporations have been set up in various cities by the government. At the time of the survey 11 Urban

Development Corporations were in existence, albeit at varying stages in the development process. By examining the numbers of companies working in U.D.C. areas an assessment could be made of the level of activity in these areas. Figure 4.10 shows the distribution of responding companies amongst these U.D.C.s (variable QB1).

The first U.D.C. established showed the highest level of activity with 15.5% of responding companies saying that they were working, or had previously worked, in the London Docklands Development Corporation area. This was almost twice as much as the next highest area, Central Manchester, with 8.2%. This was distinct from the Trafford Park Development area, also in Manchester, with 4.4% The other development areas varied between 3.3% and 4.4%. However, many of these are in the early stages of the development process whereas the London Docklands has been in existence for ten years. This is not the case for the Merseyside Development area which, although it has been in existence for ten years only shows a similar level of activity (3.9%) to that of the majority of the other development areas. However comparisons should not be drawn too closely between the different development areas. Each area varies in size and age and some, such as L.D.D.C. have regional

factors to take into consideration.

Further to examining the development areas in which companies were working, they were also asked whether the creation of U.D.C.'s influenced their decisions to set up operations in an area. Of the responding companies 90.4% said that they would work in those areas whether or not a Development Corporation was in existence. Only 9.6% said that the existence of a corporation was critical to their setting up operations in that area.

Urban Development Corporations are not the only government initiative designed to encourage regeneration and wealth creation particularly in urban areas. Enterprise Zones operate in cities across the U.K. and provide opportunities for construction companies to engage in urban renewal. At the time of the survey 27 Enterprise Zones were in operation some of which were located in Urban Development Areas. Companies were asked to state whether any of their current work was located in each of the E.Z.'s (QB3)

The results are shown in Figure 4.11 and show a range of activity with no work at all being carried out by responding companies in three of the E.Z.'s

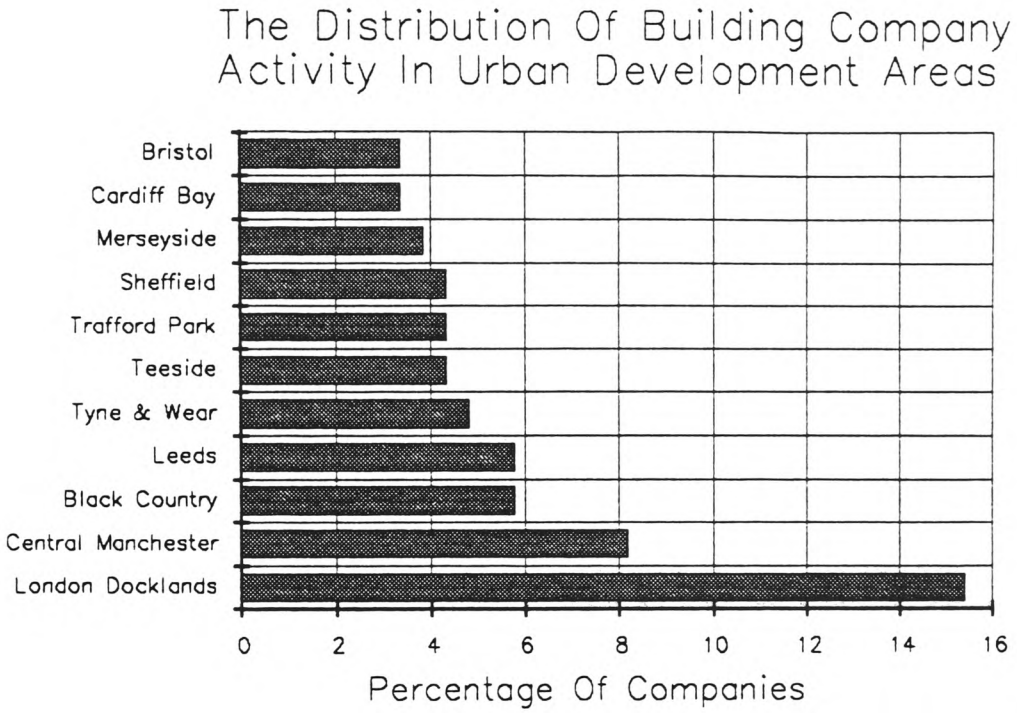


Figure 4.10

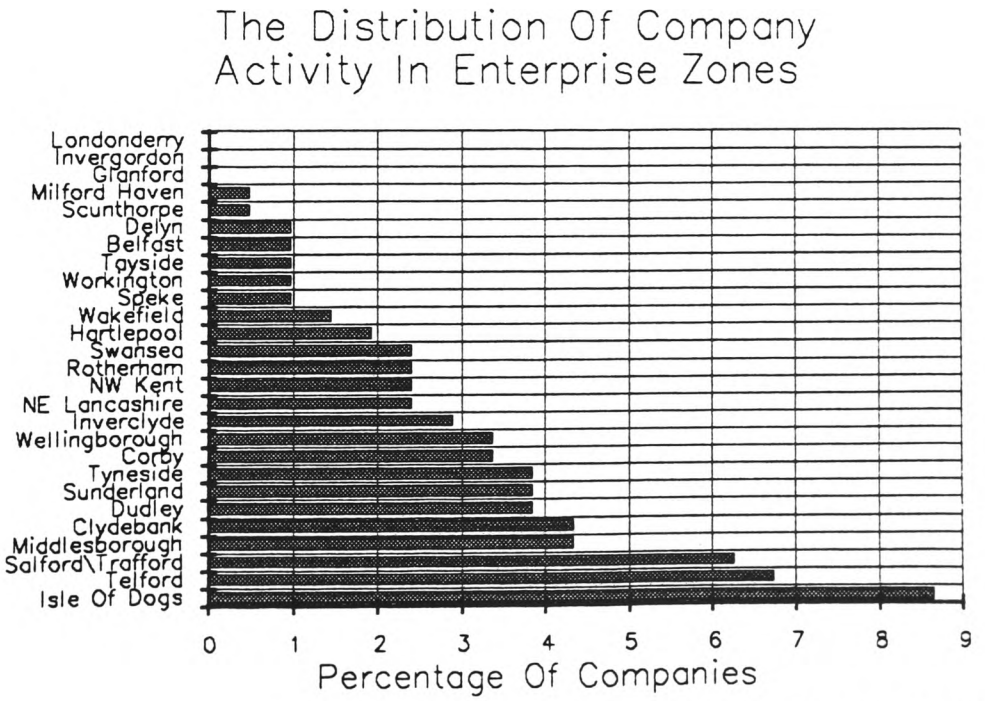


Figure 4.11

and 9.2% of responding companies currently carrying out work in the Isle Of Dogs. It should be noted that as well as forming part of the L.D.D.C. the Isle Of Dogs is also the location of Canary Wharf. This is one of the largest building projects currently being undertaken in Europe.

The next three variables examine a selection of the different ways in which companies may have responded to urban renewal. These questions were very important to the aims of the research as they identify those companies that have responded and also the most popular form of response. Due to the importance of these questions they are repeated later in the questionnaire using different wording. This is a common practice in questionnaire design and allows for a comparison of response between repeated questions. This results is a more accurate evaluation of the true response to a question.

Companies were simply asked to state whether or not they were involved with a selection of initiatives (QB5,QB6 and QB7). These initiatives were as follows:

i. Is any part of the organisation devoted entirely to work involving urban regeneration alone ?

ii. Is the organisation involved with any consortium of construction companies formed to undertake work involving urban renewal ?

iii. Is the organisation actively involved with any private sector agency for the purposes of promoting urban regeneration ?

Of the responding companies 5.6% used part of their organisation entirely for urban renewal work, 10.8% were involved with a consortium and 12.2% were involved with a private sector agency.

The last three variables all provide an indication of general responses to urban renewal. When examining the way that companies operate in the development of land in urban areas a number of methods are apparent. A selection of these were listed in QB8 and companies were asked to state which of them best described any of their current projects in urban areas.

Figure 4.12 shows the distribution of responses in the form of a bar chart. This clearly shows that traditional building contracting provides the dominant response with 59.7% of companies working in this capacity. Speculative development was used in 41% of cases with 20.1% in partnership with a public

body, 14.9% in partnership with both public and private bodies and 14.2% in partnership with a financial organisation. Joint ventures were undertaken by 10.4% of responding companies and 5.2% said that they carried out an alternative form of work.

Firms were also asked to state which of these accounted for their greatest turnover (QB9). Here, again, the outcome was predominantly traditional as shown in Figure 4.13. The traditional form of building contracting was the source of greatest

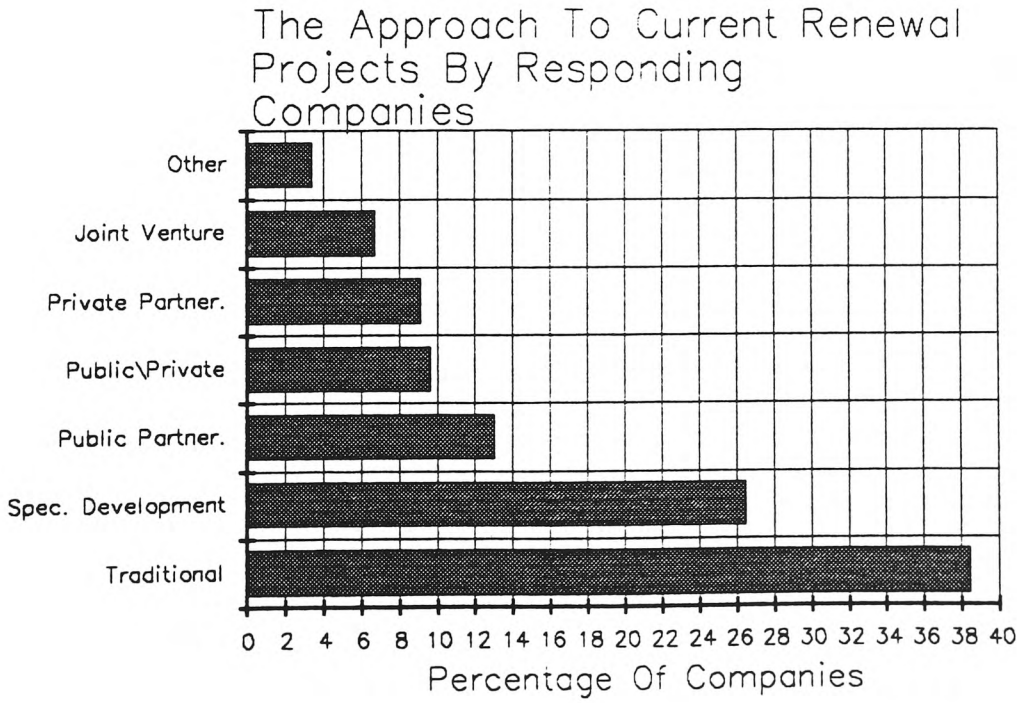


Figure 4.12

turnover for 51.8% of the sample. This was followed by property development with 15.3%. The others all recorded very low percentages indicating that very few firms specialised in these activities.

The next variable (QB10) concentrates on the specific project type carried out in urban development areas. The emphasis of the question was exclusively on building work and only considered the distinction between new build and refurbishment, each of which divided into three classes; commercial, domestic and industrial. This is distinct from variable QA5 which took account of involvement in a very broad range of construction activities in all areas and QA6 which then considered those activities in relation to turnover.

Figure 4.14 shows the distribution of the type of construction and establishes that new domestic work was the dominant activity with 38.9% claiming that this produces the greatest turnover. New commercial (19.5%) and new industrial (16.8%) together with domestic refurbishment (13.3%) provide a significant number of firms with their greatest urban redevelopment turnover. Commercial refurbishment (8.0%) and industrial refurbishment (1.8%) formed the greatest source of turnover for only a small number

of companies.

It must be remembered, however, that these figures do not give a true reflection of the distribution of the actual types of work. They merely show which

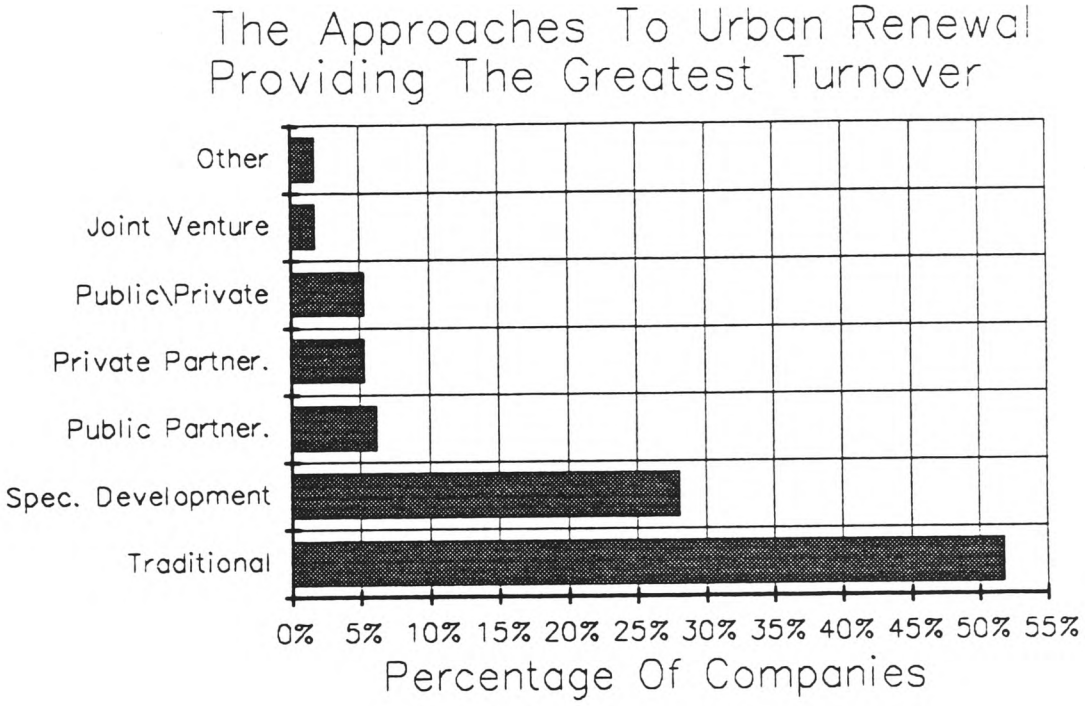


Figure 4.13

activities are the dominant ones, in terms of turnover, amongst those cited in the question. For instance industrial refurbishment may or may not be practised widely amongst responding companies. It is only possible to say that it was the greatest source of turnover for very few companies.

The levels to which grant aid was being utilised in the development process was assessed using questions QB11 to QB14. However, the response to this variable was particularly low and thus some doubt must be cast on the reliability of these results. Of the 209 responding companies only 136 responded to QB11 which asked whether or not grant aid was utilised to make a scheme viable. The results showed that 33.1% (valid percent) did in fact make use of grant aid, the remainder did not. However when the missing values are not discounted only 21.5% actually said that they made use of grants in order to make the scheme viable; 43.1% did not use grants to make the schemes viable and 35.4% did not complete the question.

In hindsight it can be seen that the question has been badly phrased. The use of the term " to make the scheme viable" is vague and will have led to confusion on the part of the responding company. The question should simply have asked whether any grant aid was used by the responding company in urban areas and, if so, what proportion of current work did it constitute. As a result of this it is now difficult to determine the number of companies who do in fact use grants for their urban renewal projects, although the results do give an indication of the relative importance of grant aid in urban renewal projects.

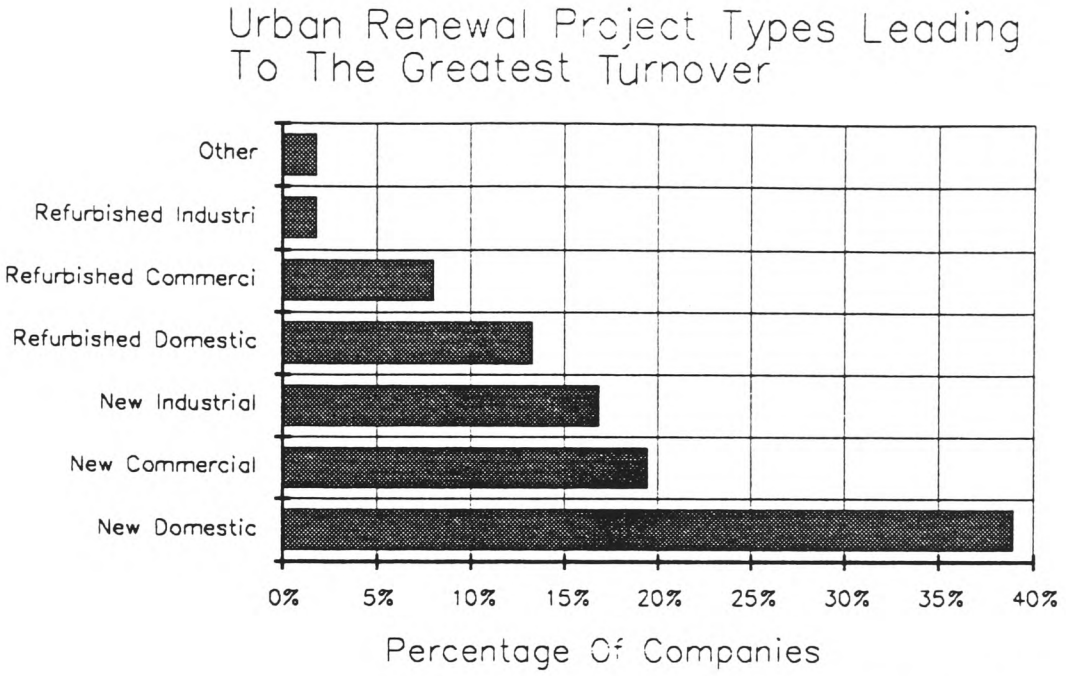


Figure 4.14

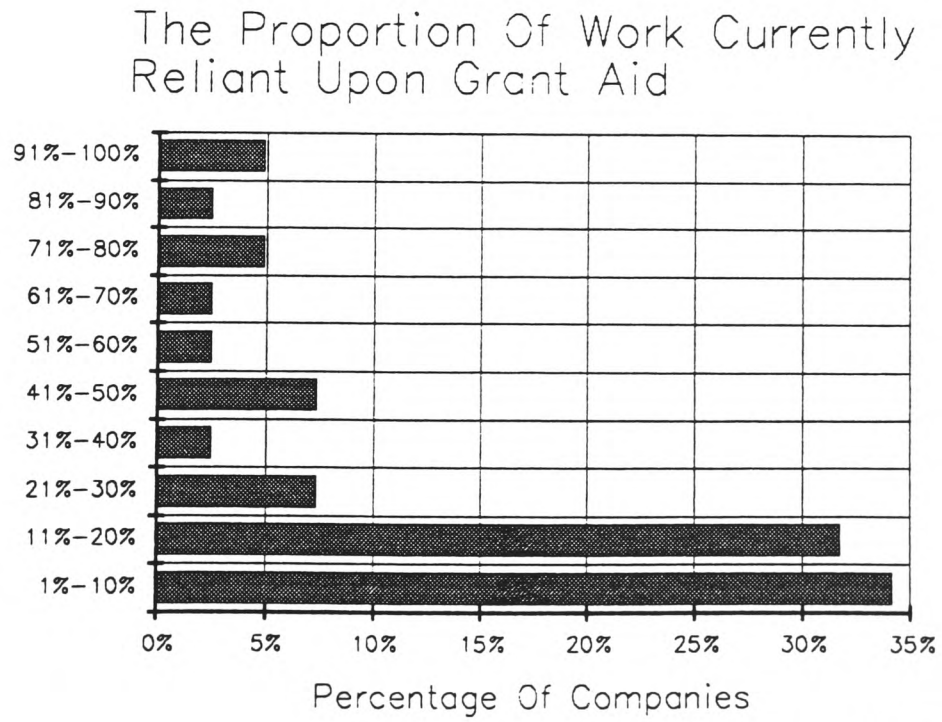


Figure 4.15

The next variable QB12 was intended for completion only by those companies answering "yes" to the previous variable. Although the results of the previous variable are inconclusive it is possible to analyse this variable, as all those that completed it certainly do carry out work involving the use of grants. However, of those that completed this question the results showed that a substantial number of these companies (61.8%) received grants for between 1% and 20% of their total work. The remaining companies received grants which accounted for between 31% and 100% of their total
work and of these 4.9% of companies used grant aid in all their projects.

4.2.3 Results From Section C Of The Questionnaire

This section was devoted to the acquisition of specific information regarding the company's urban regeneration activities, and an examination of corporate attitudes towards urban regeneration work in the fields of domestic, commercial and industrial construction.

The first two questions of this section (QC1 and QC2) examine the increase or decrease in urban renewal work over the last decade and the expected

activity in the next decade.

The results showed that an overwhelming majority (94.7%) thought that, overall, regeneration turnover had increased over the last decade, and a slightly smaller number (90.0%) stated that their own regeneration turnover had increased. Also, 89.4% felt that regeneration turnover would continue to increase both for themselves and in general, over the next decade.

The next question (QC3) examined the regional distribution of urban renewal work. Figure 4.16 shows the numbers of companies, expressed as a percentage of the sample, carrying out urban renewal in various regions throughout the U.K.

It can be seen that the distribution is dominated by Greater London with 27.6% of companies carrying out renewal work in that area. The North West of England (18.9%) and the West Midlands (14.2%) are also areas where large amounts of urban regeneration are taking place. These areas are the locations of large conurbations and it is, therefore, logical that most renewal work is carried out in these regions. The regions with the lowest urban regeneration activity are Northern Ireland (2.4%), South West

England (6.3%) and East Anglia (6.3%). Northern Ireland is not located on the mainland and there are certain risks for building companies working there. Construction work in the province is generally carried out by small to medium sized local firms which are not included in the population of large building companies which this research is examining. For these reasons the level of regeneration activity may be much higher than the results would suggest. Both the South West of England and East Anglia are predominantly rural and, as the results show, there is a low level of urban renewal activity.

Having examined the regional distribution of urban renewal work it is now possible to compare it with the distribution of general work given by variable QA9 and shown in Figure 4.6. The comparison is shown in Figure 4.17 which shows both distributions on the same chart. The differences between the two distributions are quite marked. In particular the number of companies engaged in some form of regeneration work is low, relative to general work, for the South East of England, East Anglia, the South West and the East Midlands in comparison with general work. Each of these regions is either a rural area or one on which the majority of urban development has taken place in the last 45 years, i.e. areas in which

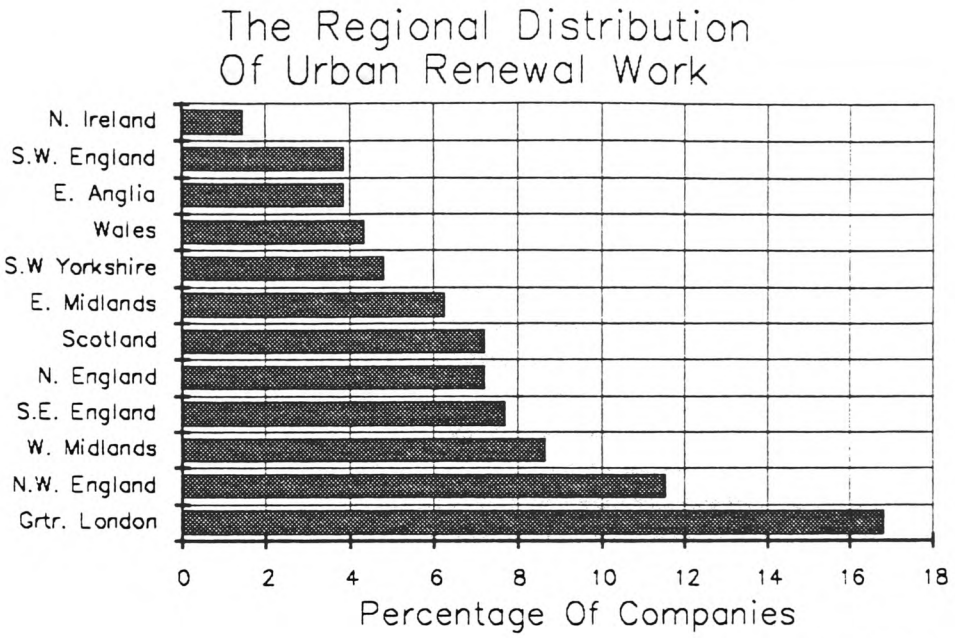


Figure 4.16

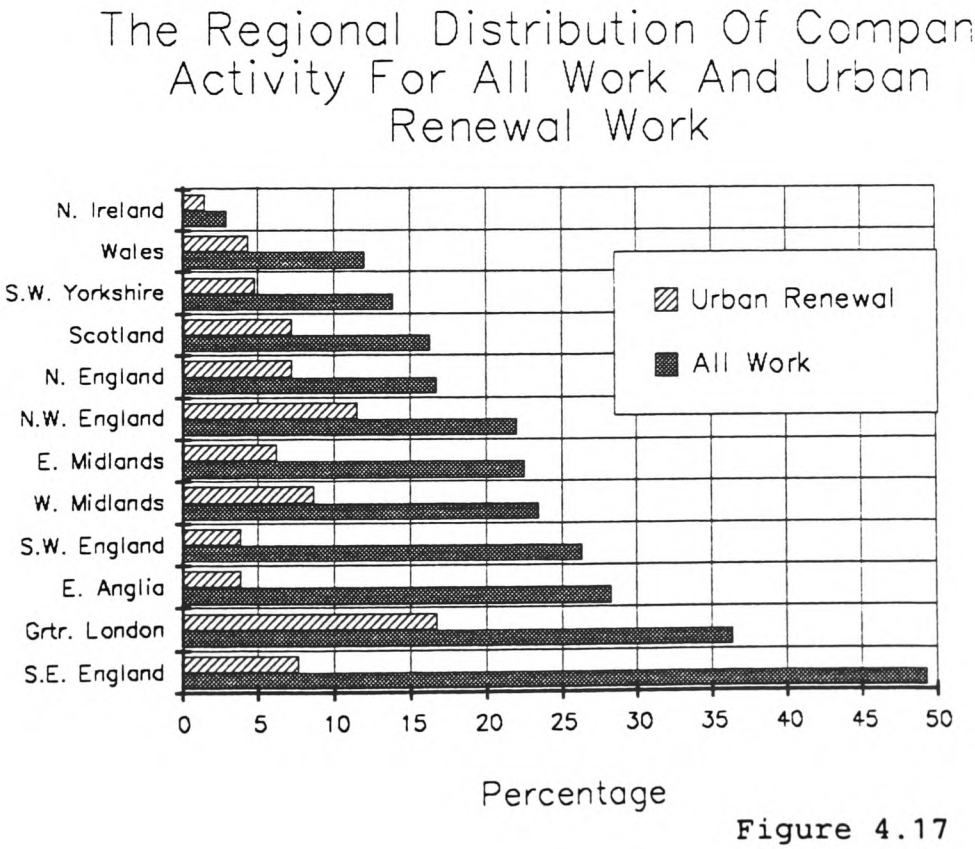


Figure 4.17

the need for urban regeneration is low.

The results above indicate the number of companies carrying out urban renewal within a given region and Figure 4.17 compares this distribution with the distribution of general work. It therefore gives an idea of the level of activity in each region. It does not, however, give any idea of the scale or cost of the work. This is provided by variable QC3 which asked responding companies to supply an approximate value for the renewal work that they carried out in each region. The results are produced as a distribution of values in Figure 4.18. The distribution is broadly similar to that shown in Figure 4.16; however there are some differences. These differences are highlighted in Figure 4.19. This Figure shows the ratio between the total value of urban renewal work in each region and the number of companies undertaking urban renewal in that region. The values for each region are, thus, the average values of urban renewal work for each company operating in that region. The results show that the regions with the greatest average urban renewal turnover per company are South West Yorkshire , Greater London, South West England and North West England. These findings confirm the results shown in the previous two Figures. Both Greater London and the

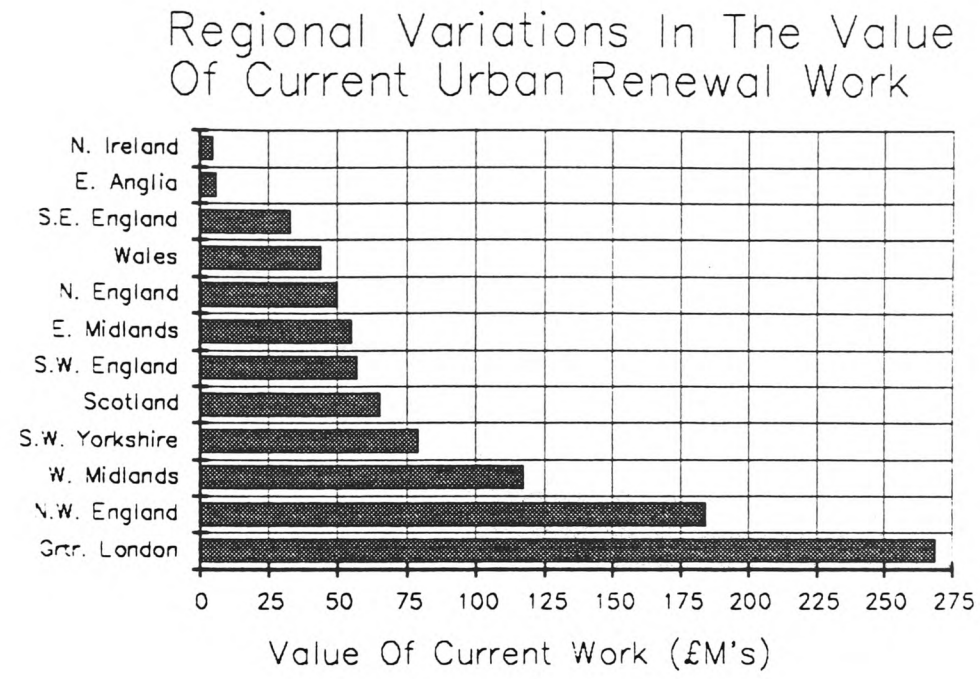


Figure 4.18

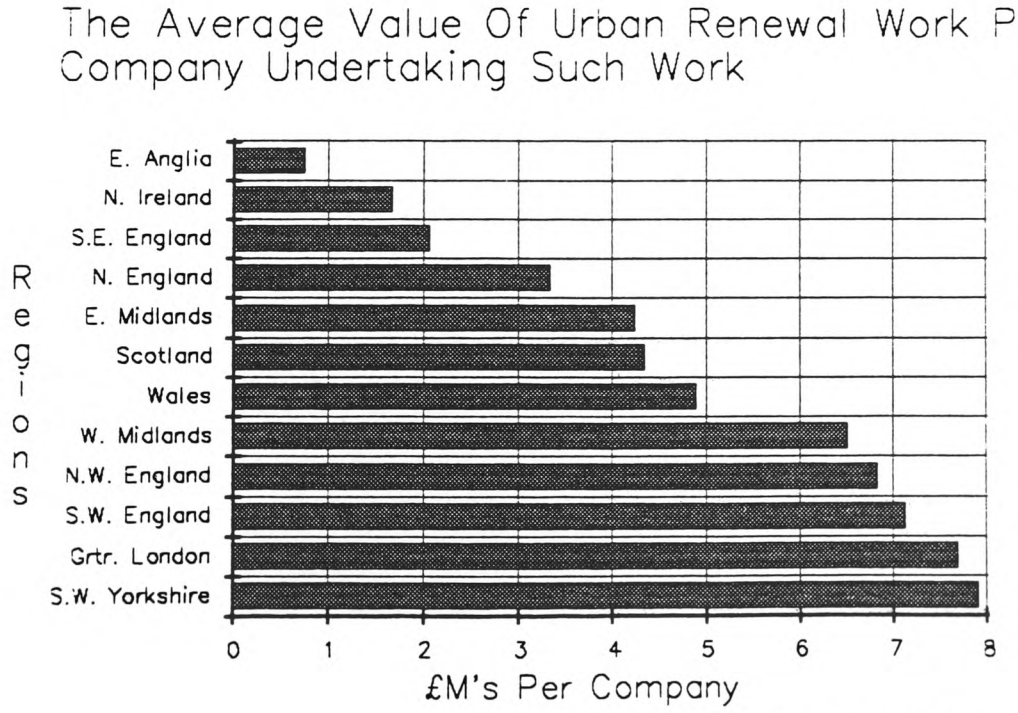


Figure 4.19

North West of England have a relatively high value of urban renewal work and also a high proportion of the sample undertake renewal work in these regions. Thus, there is a large amount of regeneration work and a relatively large number of companies available to undertake it. The anomaly with the result shown in Figure 4.19 would appear to be the finding that companies undertaking urban renewal in South West Yorkshire and South West England have amongst the highest average turnovers of urban renewal per company. This result is discussed further in the next Chapter.

Variable QC4 takes the analysis of regional variations a step further by examining those areas that were expected to undergo most regeneration over the next decade. The results of this variable are shown in Figure 4.20. These show that the present situation is, to a large extent expected to continue over the next decade i.e. that most regeneration will take place in Greater London, N.W. England, the West Midlands and Northern England.

The next two variables (QC5 and QC6) examine in a simplified way the perceived nature of urban renewal work. The response options are whether the current work is of a traditional nature or more specialised.

Respondents were also asked whether they anticipated that renewal work would become more specialised, less specialised or stay the same. The results are presented in Figure 4.21. These show that a valid percentage of 68.1% viewed renewal work as traditional in nature, the remainder seeing it as specialised. Further, 34.9% of companies expected an increase in specialisation in this sector. Only 3.4% expected urban renewal to become less specialised and 61.7% expected it to stay the same.

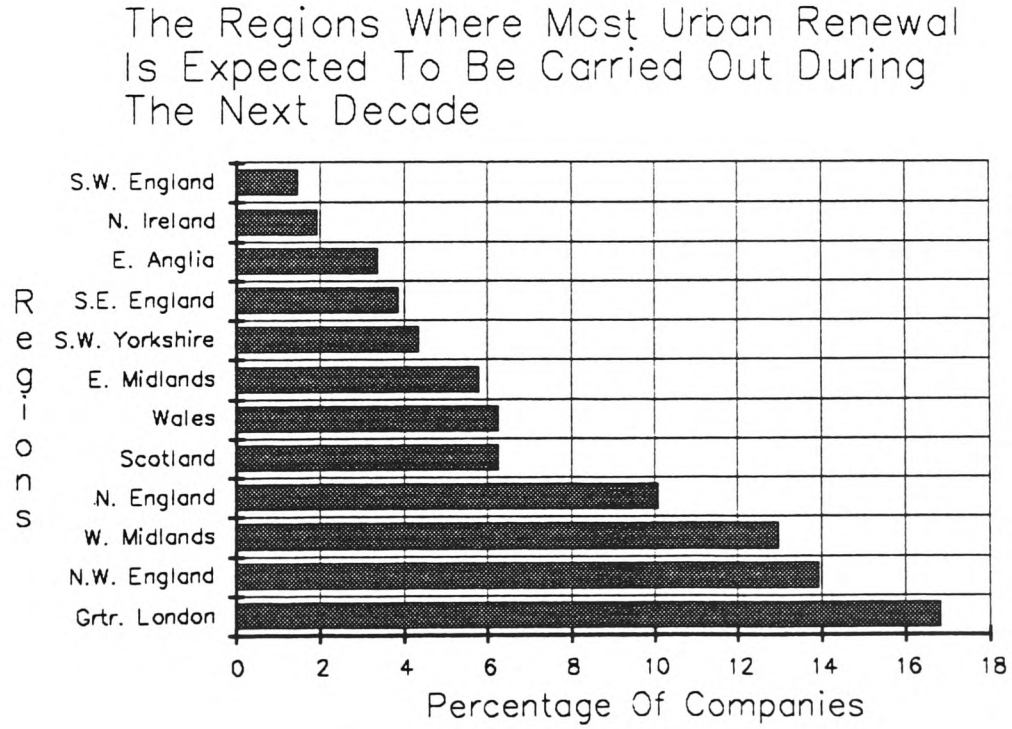
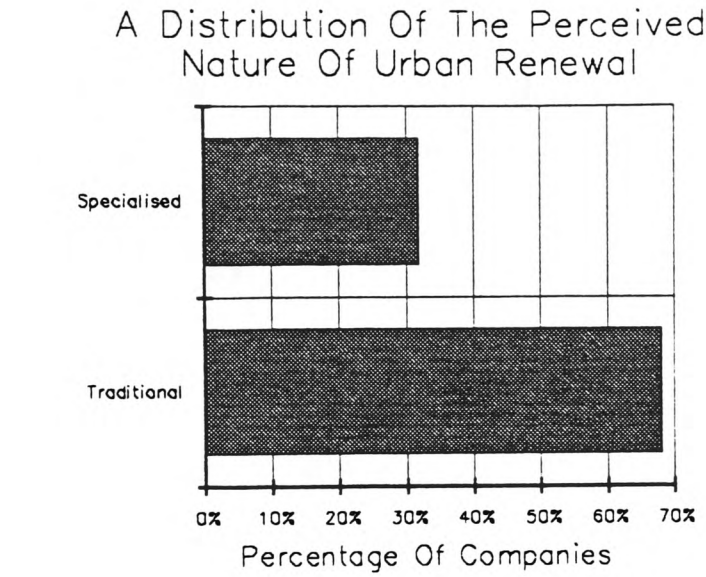


Figure 4.20



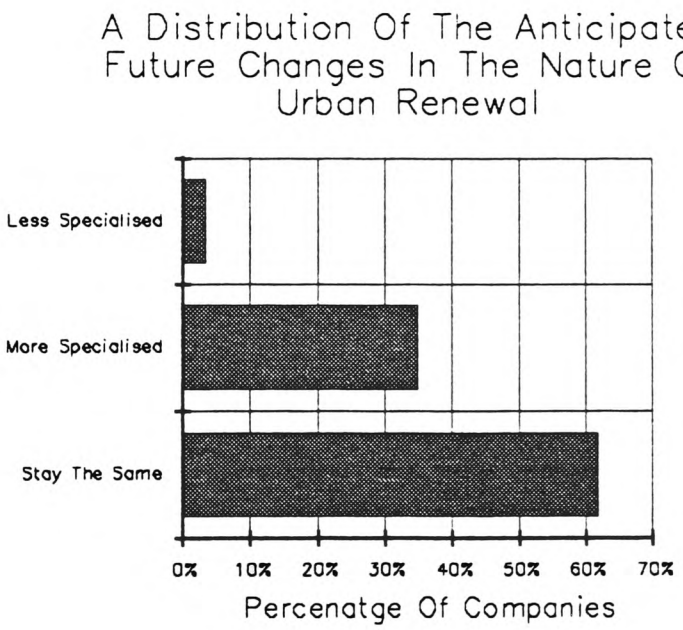


Figure 4.21

One of the clearest indications of a company's adaptation towards renewal work is the setting up of a division or subsidiary devoted purely to working in

this sector either for itself or for the parent organisation. Variable QC7 examines the attitudes of companies to this subject. The results showed that 36.8% would, in fact, consider taking this step as against 55.7% who said they would not and 7.5% who had already taken such a step. This is shown in the form of a bar chart in Figure 4.22. The percentage who would consider setting up a division or subsidiary devoted to urban renewal or who have already done so is substantial and suggests that urban regeneration work will form an increasingly important component of building companies' future work.

This tends to be confirmed by the responses to variables QC8 and QC9 in which respondents were asked to state the importance to them of urban renewal work on a scale of 1 to 5 (1 being very unimportant and 5 being very important). This was done for both the present situation and also for the firms anticipation of future needs. Figure 4.23 shows the results of both of these variables in the form of a bar chart. It can be seen that there is some shift in importance from current evaluations to anticipated evaluations.

At present 50.3% of respondents rated urban renewal as unimportant (either 1 or 2 on the scale), 27.4%

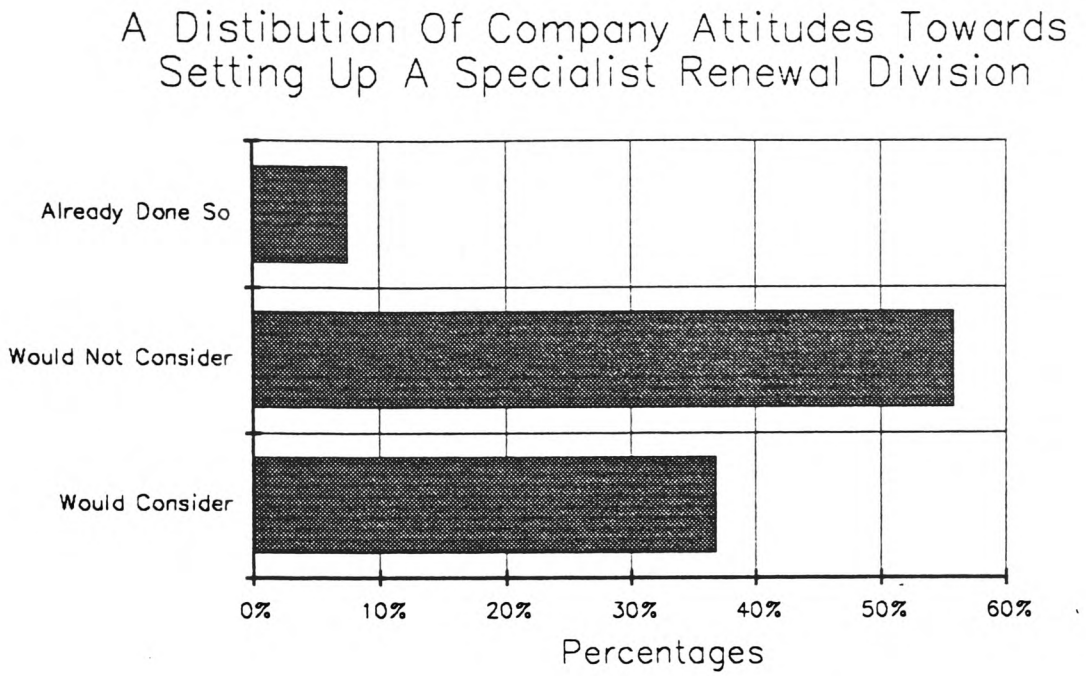


Figure 4.22

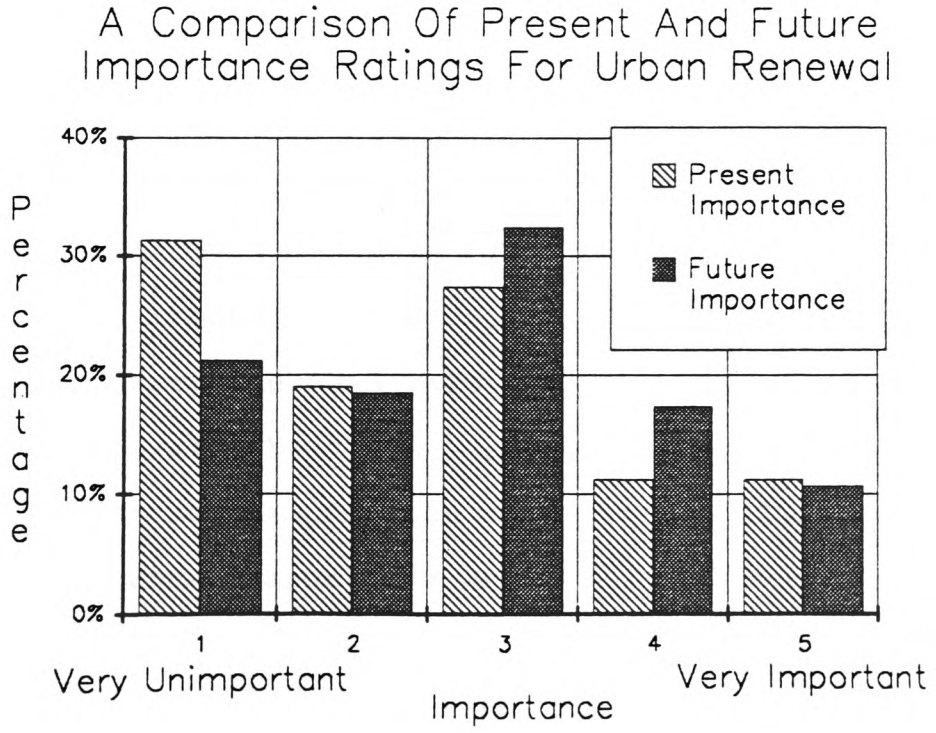


Figure 4.23

were either undecided or ambiguous and 22.3% rated it as important to them (either 4 or 5 on the scale). This compares with only 39.7% of respondents who expected urban renewal to remain unimportant to them, 32.4% who expected it to be neither important or unimportant and 27.9% who expected it to be important in the future.

In other words, relative to the present position, 10.6% fewer companies expected renewal work to remain unimportant in the future and the number of companies which expected renewal work to be important to them in the future increased by 5.6%.

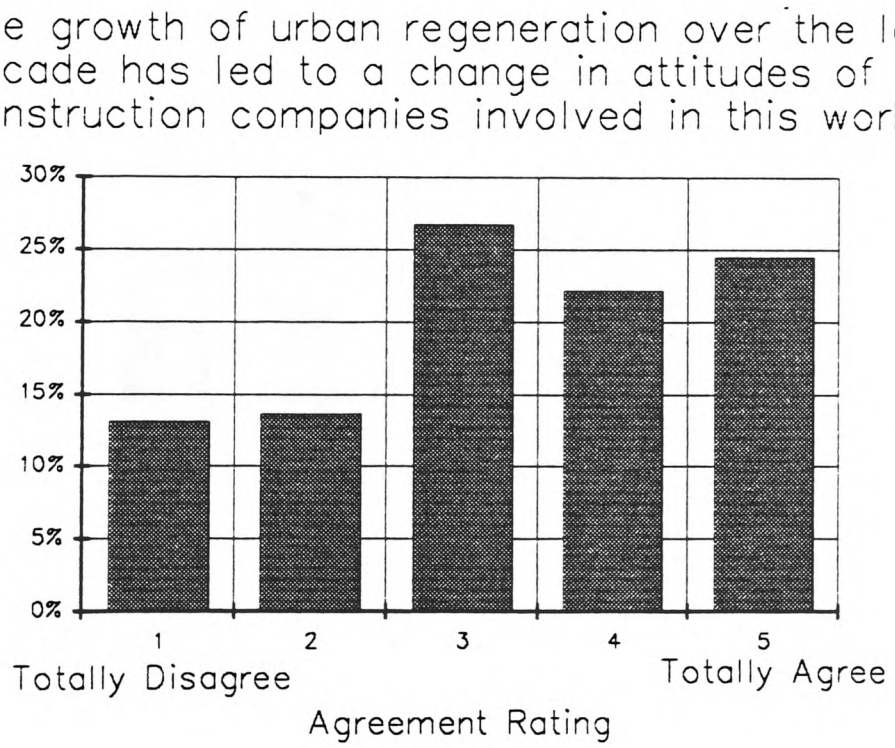
Another method of describing this shift is to examine the mean values of each distribution. Since, for a uniform distribution, the mean value is 3, then mean values above 3 indicate that, overall, companies rated urban renewal as important and vice versa. The higher or lower the mean value is, the more or less importance is attached. For the whole sample the mean value of present importance was 2.51 and the mean value for future importance was 2.80. This confirms the findings above that indicate a higher importance rating for urban renewal in the future. There is, thus, a shift in attitudes between the situation, as perceived at present, and future company

expectations. The results indicate that a number of companies expect urban renewal work to become increasingly important to them in the future. It should be noted, however, that both mean values are below 3 and show that companies, overall, consider urban renewal to be of relatively low importantnce. both now and in the future.

The next ten variables were all included in question QC10 and consisted of a series of statements about urban regeneration. Respondents were asked to indicate the degree to which they agreed or disagreed with each statement on a Likert scale of 1 to 5 (1 being complete disagreement and 5 being complete agreement). For each of these variables the results are plotted in the form of a bar chart. The mean, median and mode are calculated along with values for skewness and kurtosis. For a normal distribution the mean, mode and median values would all equal 3. Therefore it can be seen from the values calculated, to what degree the data deviate from a normal distribution. By calculating values for kurtosis and skewness the shape of the distribution can be described. From this, the direction, if any,towards which the distribution is skewed can be ascertained and also it can be established whether the distribution was spread evenly over the scale or

clustered around certain values.

Figure 4.24, below, shows the distribution of responses for the first statement. The results show that, overall, there was agreement with the statement. Therefore, it does appear that there has been a change in the attitudes of construction companies engaged in urban regeneration over the last decade.



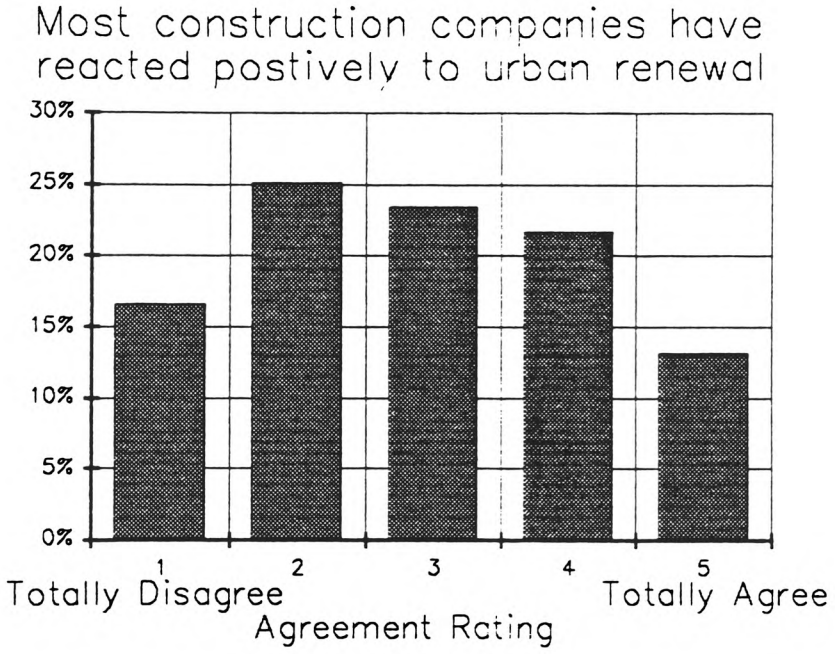
Mean = 3.313

Kurtosis = -1.001 (less peaked than a normal distribution)

Skewness = -0296 (tail towards the lower values)

Figure 4.24

The distribution for statement 2 is shown below in Figure 4.25. In this case the results establish that there was overall disagreement. This would indicate that responding companies do not think that construction companies, generally, have responded positively to urban renewal work.



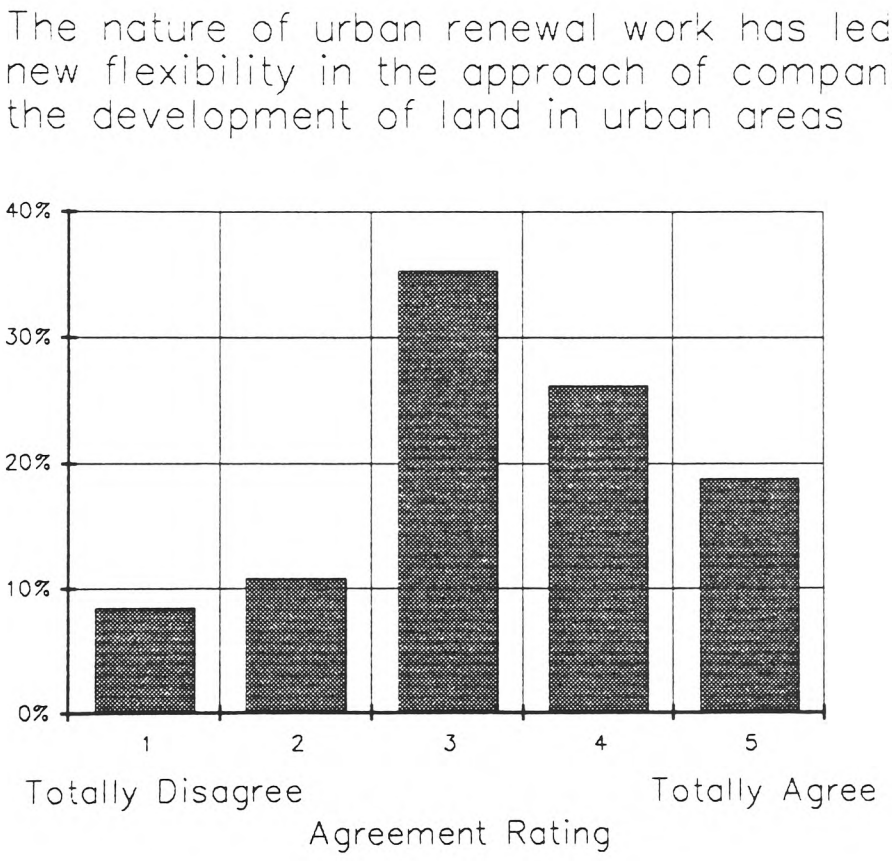
Mean = 2.897

Kurtosis = -1.078 (less peaked than a normal distribution)

Skewness = 0.096 (tail towards the upper values)

Figure 4.25

The distribution for statement C10-3 is shown below in Figure 4.26. The results illustrate that there was agreement that the construction industry had become more more flexible in its approach to urban development as a result of the growth in urban regeneration.



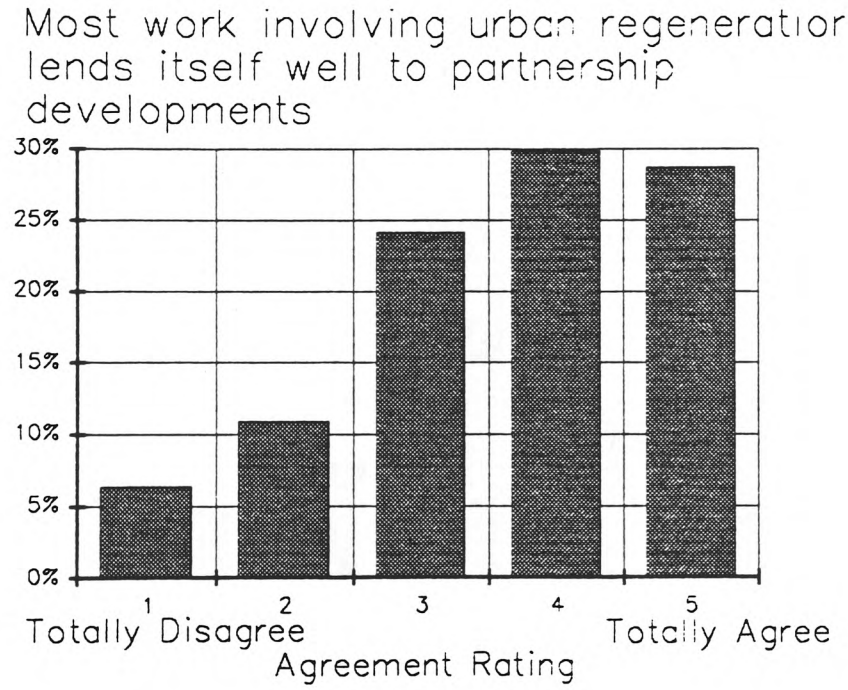
Mean = 3.360

Kurtosis = -0.501 (less peaked than a normal distribution)

Skewness = -0.336 (tail towards the lower values)

Figure 4.26

Statement C10-4 (Figure 4.27) again illustrates that there was overall agreement with the statement. In comparison with the previous distributions there was quite strong agreement. Companies appear to agree that partnership work is very appropriate to the urban renewal market.



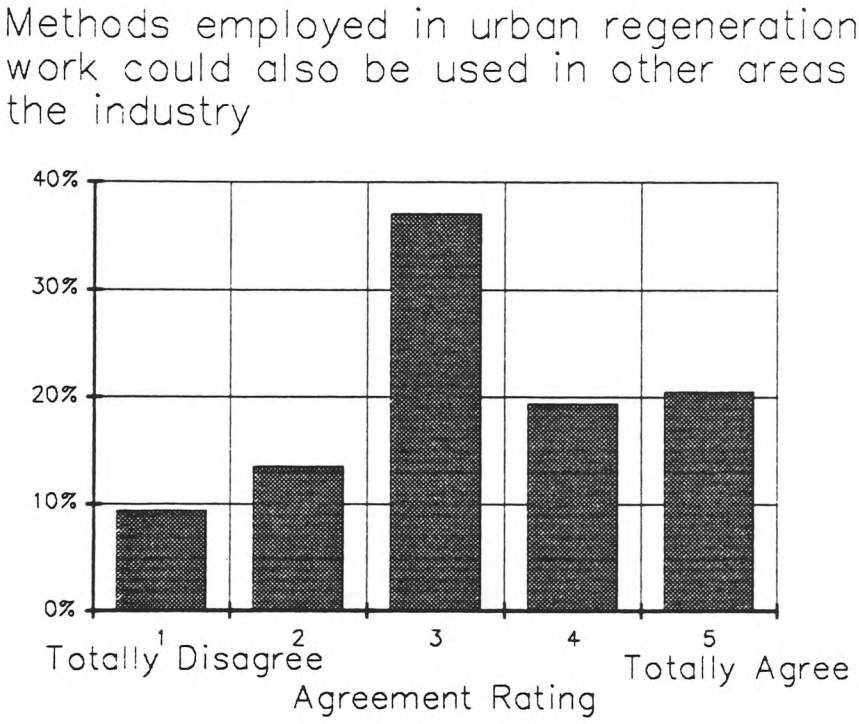
Mean = 3.638

Kurtosis = -0.502 (less peaked than a normal distribution)

Skewness = -0.584 (tail towards the lower values)

Figure 4.27

In statement 5 (Figure 4.28) the skew of the distribution is less clear to see. The mean value is very close to 3 and the skewness value is the closest to zero of all the distributions so far examined. Companies, therefore, appear split on the issue of using urban regeneration methods in other sectors of the industry.



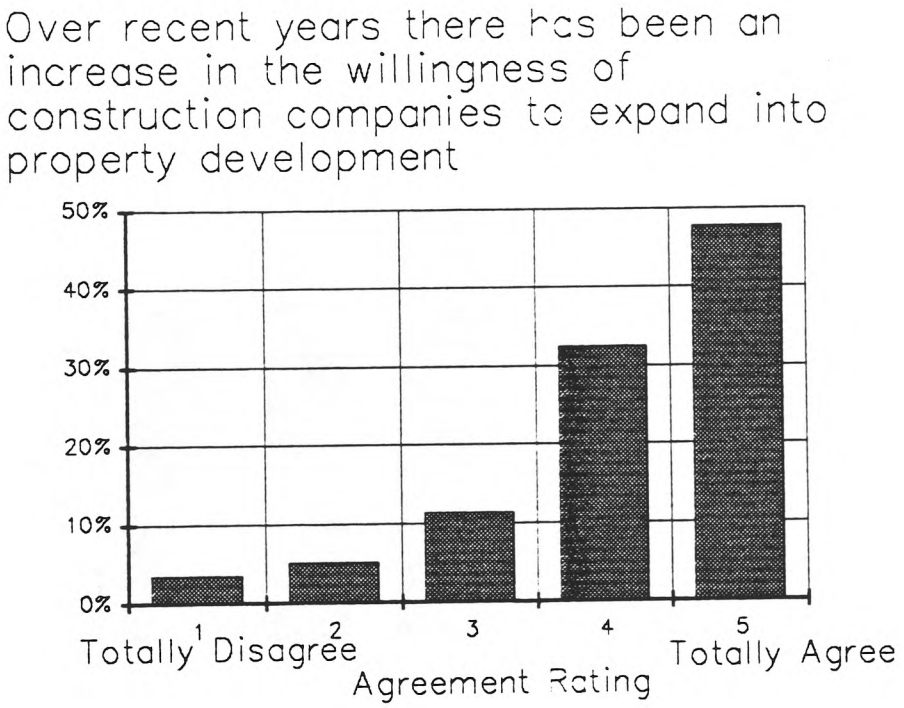
Mean = 3.282

Kurtosis = -0.718 (less peaked than a normal distribution)

Skewness = -0.172 (tail towards the lower values)

Figure 4.28

Statement C10-6 examined the expansion of construction companies into the area of property development. Figure 4.29 shows that the distribution was skewed towards the higher values. It can be seen that there is very strong agreement with the statement that there has been an increased willingness to undertake property development on the part of construction companies.



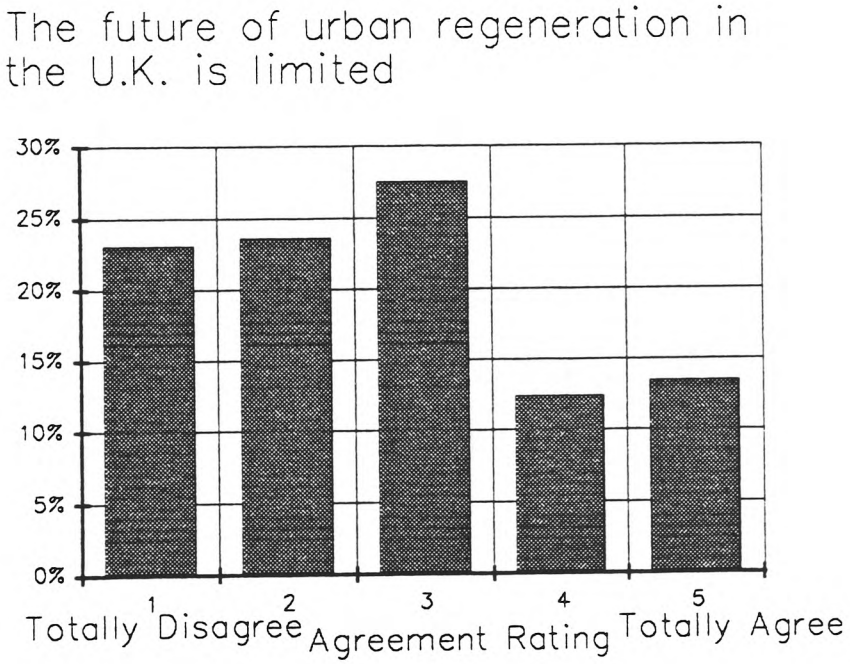
Mean = 4.159

Kurtosis =1.201

Skewness = -1,339

Figure 4.29

For statement 7 (Figure 4.30) the mean value is 2.697 and both the median and mode values are 3. The value of skewness is 0.332 and the value of kurtosis is -0.944. the distribution is quite evenly spread and is skewed towards the lower values of the scale. Respondents, therefore, tended to disagree that the future of urban regeneration work is limited within the U.K.



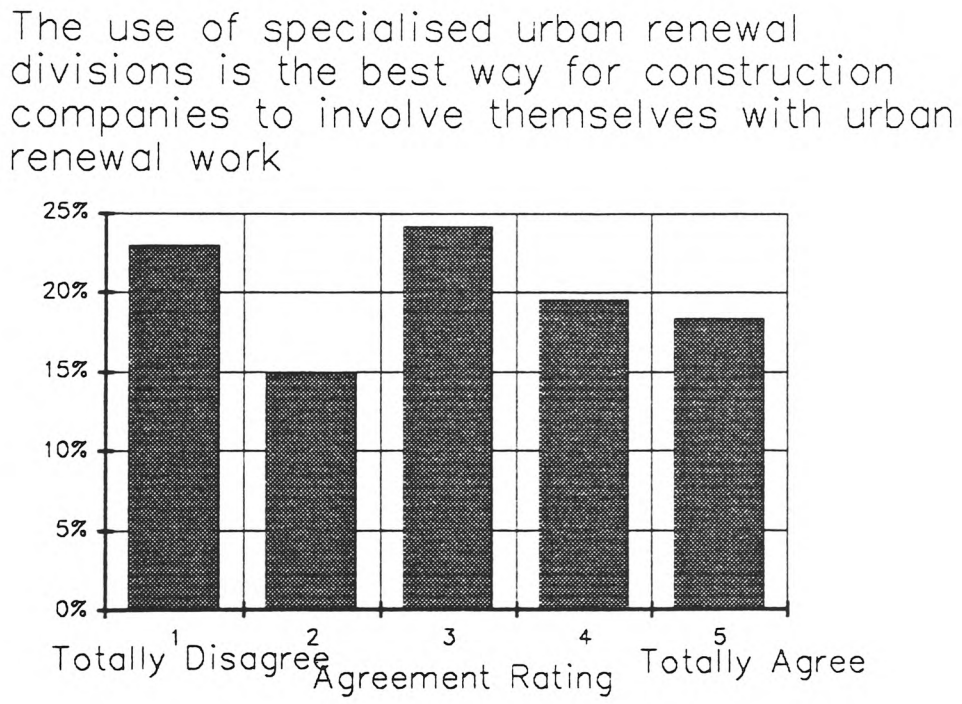
Mean = 2.697

Kurtosis = -0.944

Skewness = 0.332

Figure 4.30

Figure 4.31 shows the distribution of statement C10-8. The results show that opinion was divided almost equally between agreement and disagreement for statement C10-8 with a very slight skew towards the higher values (agreement). The use of specialised divisions as the best way of carrying out renewal work is clearly a contentious issue.



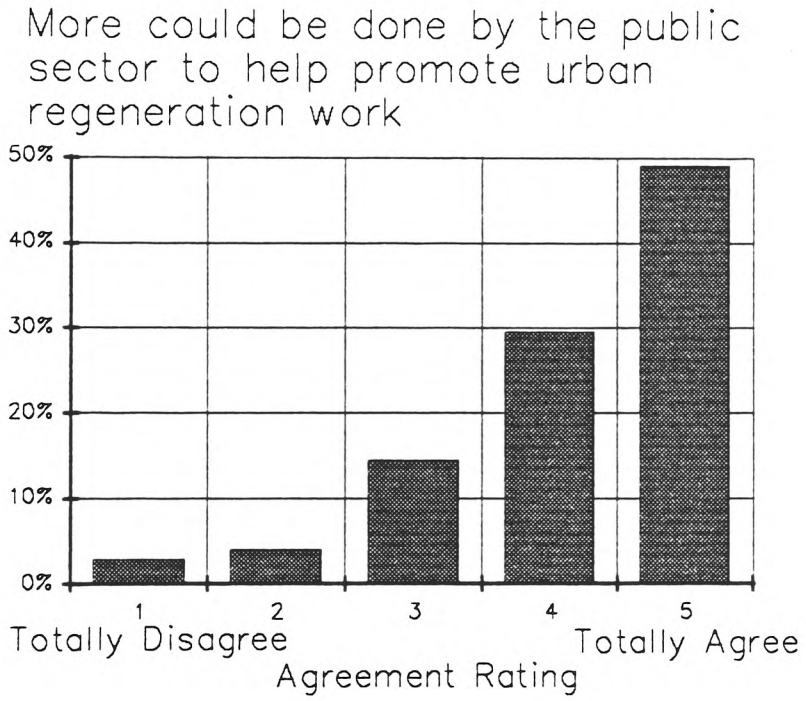
Mean = 2.954

Kurtosis = -1.265

Skewness = -0.016

Figure 4.31

Statement C10-9 (Figure 4.32) examined the role of the public sector in urban regeneration. From this it can be seen that there was a high degree of agreement amongst responding companies with the statement i.e. companies generally felt that the public sector could do more to help promote urban regeneration.



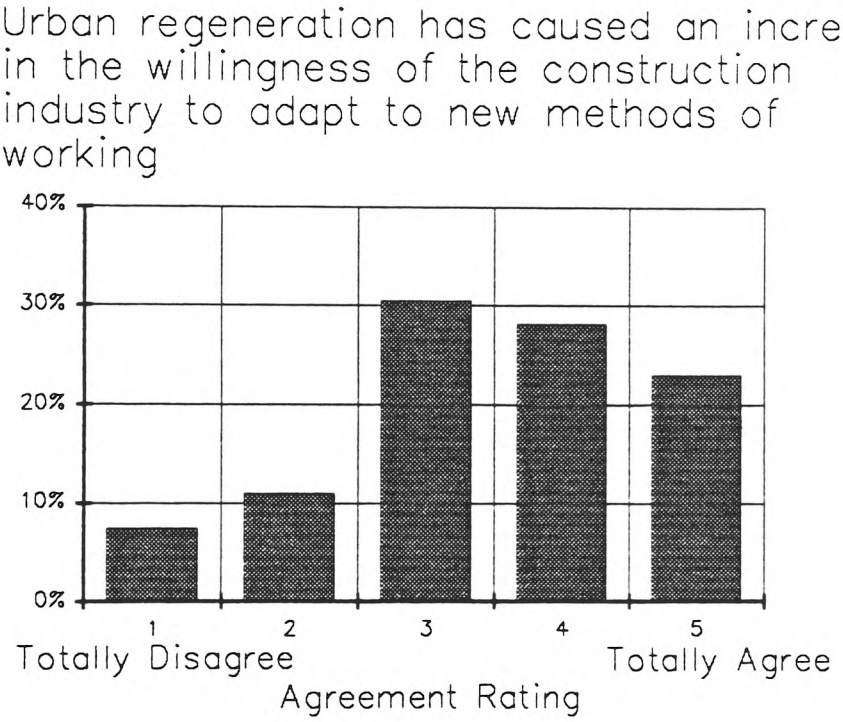
Mean = 4.179

Kurtosis = 1.221

Skewness = -1.276

Figure 4.32

Finally, Figure 4.33 shows the distribution for statement C10-10. The results showed that, overall, there was agreement amongst responding companies that the construction industry is more willing to adapt to new methods as a result of urban regeneration.



Mean = 3.483

Kurtosis = -0.541

Skewness = -0.432

Figure 4.33

4.2.4 The Results From Sections D and E Of The Questionnaire

Section D was intended to examine the nature of any responses to urban renewal that responding companies may have made. Due to the nature of this section the majority of questions are based on the supply of qualitative data by the responding companies. This form of data is difficult to analyse statistically and the responses to these questions are, therefore, presented and discussed in a qualitative manner.

Section E was devoted to feedback about the design of the questionnaire. It was hoped that any errors that occured in the questionnaire that may affect its accuracy could then be taken into account during the analysis.

Variable QD1 examined whether the responding companies felt that they had made a response towards urban renewal. The results showed that 48.1% of companies felt that they had responded positively. The remainder (51.9%) felt that they had made no response.

Variable QD2 examined probably the most radical and visible response that could be made to urban

regeneration, i.e. to devote part of the organisation purely to urban renewal work. Of the responding companies 10.9% stated that they had done this. The remaining 89.1% had not. This is in contrast to the response from QB5 in which 5.6% of respondents stated that they devoted a part of their organisation entirely to urban regeneration and QC7 in which 7.5% of respondents claimed that they already devoted part of their company structure only to urban regeneration. The discrepancy in these values may be partially explained by the different wording used for each question. However, the main cause of the discrepancy is the different number of companies that completed each question. The highest completion rate was for QB5 and the lowest completion rate of the three questions was for QD2. The most accurate value, therefore, is that for QB5 as this question had the highest completion rate of the three. This question also came earliest in the sequence and should, thus, have been completed with most thought.

In QD3 a variety of other possible responses were listed and responding companies were asked to state which of them applied to their organisation. The results are shown in Figure 4.34 and these show that the largest proportion of companies were involved in a joint venture company with a private sector

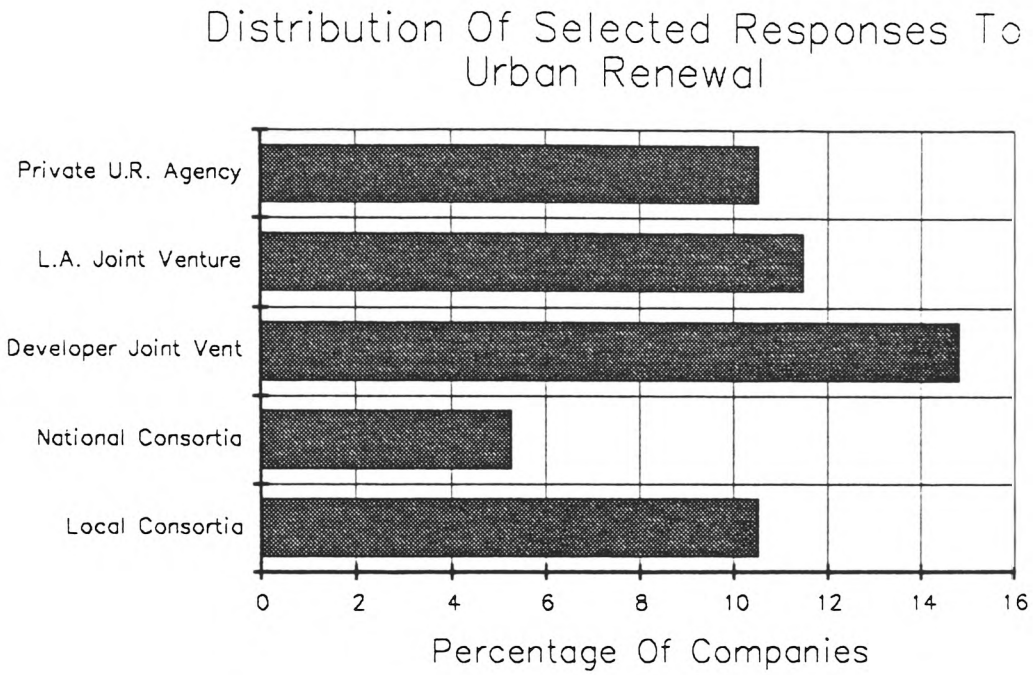


Figure 4.34

developer (19.4%). Joint ventures with Local Authorities came next with 15.2% and then consortia of construction companies of which 13.9% of respondents were involved with local consortia and 7% were involved with national consortia. Private sector enabling agencies utilising land assembly accounted for 13.9%.

The major factors given by the respondents to the questions relating to the advantages of responding to urban regeneration (QD4), the manner of the response (QD5) and the reasons for a negative response are given below.

Question D4 asked those companies that felt that they had responded positively to urban renewal to describe the advantages that this had provided them with. Only 46 companies completed this question which represents 20% of the sample. Of these the most common comment suggested the main advantage to be an increase in overall construction activity. Almost all respondents that answered this question stated an increase of turnover as a prime advantage. Other advantages in responding to renewal work were seen by some companies as the opportunity to diversify and acquisition possibilities. Involvement in social housing provision and the ability to undertake shared risk projects were also viewed as benefits. In fact several respondents included the psychological and emotional benefits accruing from engaging in social improvement to urban areas. Some companies envisaged that an increasing amount of work would be undertaken over the next decade in urban areas providing much needed work for the industry. By becoming involved at this stage they aimed to become established in what many consider to be an expanding and specialised market. The publicity value of regeneration was recognised by a few respondents along with environmental considerations. A few companies thought that increasing involvement with developers would

lead to more work and a greater share of the profits. One company saw an enhanced role and reputation for the contractor along with a better client/contractor relationship. Finally, contact with funding agencies and the possibility of future work were also considered by several companies.

These represent all of the different advantages envisaged by responding companies. Undoubtedly the main advantage was seen to be an increase in the amount of work available. This was followed by the prestige value of being involved in urban renewal and the increase in contact with funding agencies. Environmental benefits and gratification were also commonly noted.

Question D5 examined the ways in which companies had responded to the urban renewal market. Of the total sample of 209 only 38 completed this question. This represents 18% of the sample. A number of companies had set up specialist subsidiaries to work in urban renewal. One such company had set up a division in 1982 to concentrate on surplus council housing stock. It had then developed over the years to undertake refurbishments, conversions and restorations. These were predominantly residential developments.

Other responses included involvement in joint ventures with Housing Associations and Local Authorities. Others had simply taken advantage of the urban grants available. The ability to act dynamically in what is largely seen as a bureaucratic sector, and the ability to manage risk effectively are also cited as responses that have been made. A few companies were members of British Urban Development and some also worked with the Pheonix Initiative and the Birmingham Heartlands consortium. In some cases there was a recognition of the need for specialist skills to be imported into companies in order to develop urban renewal opportunities. In these cases technical appointments were made to acquire these specialist skills. Others had attempted to find a niche in the market by actively locating suitable sites, developing them (possibly at a loss), and then attempting to gain joint venture and grant aided work to make up for any losses. There were attempts by several companies to redefine their marketing strategies to include urban regeneration and also to use quality management to help cope with technical and financial problems. One company had developed a specific expertise in utilising difficult and contaminated sites for housing.

The responses identified above represent a considerable range from superficial to fundamental innovations. It is difficult to determine the true extent of each of these innovations over the whole population. It is also difficult to determine the distribution of the different responses. It is possible, however, to attempt to link differing responses with companies of different size. For instance only the larger companies have organisations capable of setting up and running urban renewal subsidiaries, although it is possible for smaller companies to allocate units or groups of personnel to concentrate on renewal work. Again it was the larger companies that were involved with consortia.

The final question in section D (QD6) examined the reasons for not responding to urban renewal work. Of the total sample only 50 (24%) completed this question. Of these the most common reason given was that the opportunity had not arisen. Generally this was because of location. In areas such as the South West and East Anglia there was no demand for any renewal work. This was not always the case though. One company commented that it was difficult to get work from Urban Development Corporations as it all went to large construction companies. Another common reason was that either the company was too specialsed

in another field or the urban renewal market was too specialised for the company. Several firms felt that they lacked enough experience and skill. Others stated that they had enough turnover currently and were thus unwilling to expand into new areas. A few felt that the sector was already full with competing companies and that it was not their strong point anyway. One company felt that the political overtones of urban regeneration made it something to be avoided. Another commented that housing sales in regeneration areas tended to have a chequered history making them high risk. Three companies said that they had made no decision on the matter and would not until they had chance to partake in renewal schemes. Finally, one company put down their lack of response simply to *"lack of buccaneering spirit"*.

Overall the most widespread comment was that geographical factors made undertaking urban renewal work impossible. The other main reasons were that there was enough workload currently and that urban renewal was considered too specialised. In the main it was the smaller companies in the sample that completed question D6. This is not surprising as many of these companies are regionally based and thus are located in areas unsuitable for renewal work. Also the size of such companies precludes them from many

of the responses that could be made by larger companies such as setting up a specialist division.

The analysis of qualitative data is difficult to achieve with truly accurate results. Inevitably an impression of respondents' feelings and meanings must be gained but there is no way that confidence limits can be set upon different answers. The situation is not helped by the poor completion rate of these questions. In hindsight it would appear to have been unwise to place these important questions so near the end of the questionnaire. Undoubtedly these questions require more thought from the respondent than the earlier closed questions. It is likely that respondents, having already completed a long questionnaire, were not prepared to give more thought to answering open questions. This is a point raised by several respondents in section E of the questionnaire.

In Section E only variable QE1 can be analysed statistically. The other question in this section requires a written, qualitative response. Variable QE1 examined the ease with which respondents completed the questionnaire. It is based on a Likert scale of 1 to 5 (1 being very easy to complete and 5 being very difficult to complete. The results are

shown in Figure 4.35.

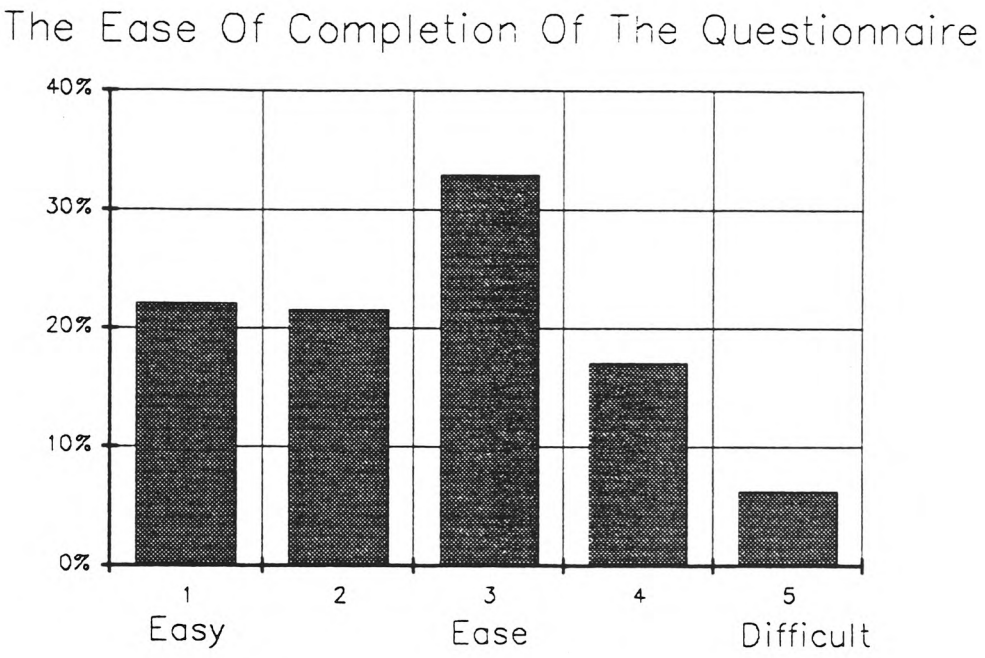


Figure 4.35

In general respondents appear to have found the questionnaire easy to complete which suggests that the design of the questionnaire was satisfactory although it is probably also the case that those companies that found the questionnaire difficult to complete will tend not to have returned it. However, the response rate was somewhat greater than that normally expected in such a survey which supports the initial conclusion. The second question in this section, question E2 required a qualitative written

response including comments and criticisms of the questionnaire. In addition to the comment already listed above others commented that it was too long, boring or simply not relevant to their company. Others felt that certain questions could not be answered because of the need for confidentiality about their operations. Some questions were said to be unclear and confusing. There was also unnecessary repetition. A few companies accused the questionnaire of being too detailed whilst others felt it was too general to examine the subject properly. There was a suggestion that skip-over questions could have been used more efficiently. This would have shortened the completion time for those companies not involved in regeneration work and, thus, increased the response rate. Overall, however, the impression was a favourable one.

4.3 Correlations And Interdependance Of Variables

Having considered the descriptive statistics in detail it is now possible to examine some of the relationships between variables. In so doing the factors that affect attitudes, and responses, towards urban renewal may be identified. The degree to which two different variables correlate with each other is

given by their correlation coefficient (see Churchill,1979). In the current work correlation coefficients have been determined for each variable paired with every other variable. In this case the Pearson r correlation coefficient was used.

The values were calculated automatically using the statistical analysis software. These values indicate the strength of the linear relationship. The largest possible value of r is 1 and this occurs when there is a perfect linear relationship between two variables. A value of zero would indicate that there was no linear relationship whatsoever. In order to relate correlation results to the population as a whole it is possible to calculate the significance levels of each correlation. Significance levels are traditionally given to 5% or 1% levels. These indicate that there is a 5% and 1% probability, respectively, that correlations are due to chance only. It is possible, therefore, to be 95% and 99% confident that correlations truly exist between variables.

The large number of variables in the questionnaire meant that, subsequently, a very large number of correlation coefficients were determined. Those correlations that there were found to be not

significant were discarded as were significant correlations between clearly unrelated variables. Only the significant correlations between variables that influence the main objectives of this work are considered.

The first set of correlations to consider are those from section B of the questionnaire. Here a significant correlation was found between each of the fundamental responses examined in questions B5, B6 and B7. There was thus a relationship between companies involved with consortia in order to undertake urban renewal and companies that had devoted part of their organisation to urban renewal. There was a similar correlation between companies involved with consortia and companies involved with private sector agencies promoting urban renewal. Finally, there was also a correlation between those companies that had devoted part of their organisations to urban renewal and those that were involved with private sector agencies. Each of these correlations were 99% significant. The results indicate that many of those companies carrying out any one of the fundamental innovations listed in QB5, QB6 and QB7 are likely to be involved with the other two innovations as well.

In section C of the questionnaire it was found that there was a 99% significant correlation between the future importance of urban renewal to a company (QC8) and the principal activity of new domestic building. This result indicates that companies carrying out new domestic construction were more likely to envisage urban renewal to be important to them in the future than those that did not carry out this activity.

There was also a correlation between companies rating urban renewal as important in the future (QC9) and both companies with part of their organisations devoted to urban renewal (QB5) and companies involved with private sector urban renewal agencies (QB7). Both of these findings might have been expected as would the strong correlation between companies finding urban renewal important both currently and in the future (QC8 and QC9 respectively).

In section D of the questionnaire there were highly significant correlations between companies that had responded to urban renewal (QD1) and both the current and future importance rating for urban renewal (QC8 and QC9). Again, these correlations confirm what might have been expected prior to the analysis.

4.4 Group Variations

So far the analysis has examined only the complete sample. This has provided a useful picture of the reactions and responses of the whole group. However, as can be seen from the descriptive statistics of section A, there is a large variety of companies included within the sample. This fact coupled with the size of the whole sample makes it possible to examine in detail subgroups within the sample. By doing this different attitudes and responses to urban renewal may be observed within the different groups. Also an indication may be gained of the way that various external factors affect responses to urban renewal.

There are a number of possible variables that may be used to define subgroups. After careful consideration it was decided to examine three. These are as follows:

i. Turnover (i.e variable QA4)

ii. The Activity Of Speculative Development (i.e variable QA5, no. 4)

iii. Response to Urban Renewal (i.e. Variable QD1)

As shown earlier in this chapter there is a very large range of turnover in the sample. It was,

therefore, possible to divide the sample into two groups with relative ease. It was decided to use the median value of turnover (£20M p.a.) as the dividing point between the two groups. There are thus two subgroups of equal size which provide a good basis for comparison. One group consisted of all those companies with a turnover of less than or equal to £20M p.a. The other group consisted of those companies with a turnover of greater than £20M p.a. The differing attitudes, if any, between smaller and larger companies can, therefore, be established.

The second set of subgroups is based on the activity of the company. One of the areas discussed in Chapter 2 was the development of urban land. Land development is one of the activities which many construction companies now undertake as well as their more traditional contracting activities. It was quite possible, therefore, that there might be fundamental differences in attitudes and responses between companies undertaking development work and those not involved. By splitting the sample into those companies carrying out speculative development and those not doing so, two, approximately equal, subgroups are obtained. This provides a basis for comparison between the two groups.

Finally, the most important dividing variable as far as this research is concerned is the response of the company. It is not possible to differentiate accurately between different physical responses. It is possible, however, to form subgroups on the basis of a response of any kind by the company. Here the variable QD1 is used as the dividing variable. This question asked the company whether or not they themselves felt that they had provided some response to urban renewal. By comparing these two subgroups it may be possible to detect the differences in attitudes between positively responding and non-responding companies. The reasons why companies have responded may then be identified.

The comparative analysis between each subgroup is applied principally to the questions in section C devoted to company attitudes. These are based upon Likert scales of 1 to 5 and thus provide continuous data distributions. When comparing two such scales there is a possibility that any observed differences are due to chance. In order to provide an indication of the significance of any observed differences and to assess the probability that they are or are not due to chance, significance tests may be applied. In this case the t-test has been selected. The t-test is one of the most commonly used statistical tests; it

compares the averages of each group and determines the probability that the differences between them are real and not due to chance. The test assumes that the two samples being compared are drawn from the same population and it determines the significance level of the difference between the two samples. It is, therefore, a very appropriate test to use in the present analysis.

The test calculates a significance level for the resulting probability. Generally statistical significance is given to a 5% level or a 1% level. A level of significance of 1% indicates that there is a 1% probability that any observed difference is due to chance i.e. there is a 99% probability that observed differences are true. In the same way for a 5% significance level it is possible to be 95% confident that observed differences are not due to chance.

Tables 4.1, 4.2 and 4.3 give, respectively, the t-test values of significance for differences between the paired groups relating to turnover, property development activity and response to urban regeneration for questions C8, C9 and C10. Questions C8 and C9 indicate the company's current and future importance rating for urban renewal. Question C10 consists of ten statements with which the respondents

were asked to agree or disagree.

Table 4.1 Comparison Of Attitudes By Turnover

Variable	Mean Attitude		T-Value
	<£20M	>=£20M	
C8	2.58	2.42	0.444
C9	2.98	2.57	0.036*
C10-1	3.35	3.18	0.451
2	3.18	2.66	0.010**
3	3.56	3.13	0.018*
4	3.71	3.54	0.400
5	3.36	3.21	0.441
6	4.22	4.13	0.591
7	2.81	2.54	0.195
8	3.20	2.67	0.018*
9	4.23	4.12	0.524
10	3.82	3.15	0.000**

Table 4.2 Comparison Of Attitudes By Activity

Variable	Mean Attitude		T-Value
	Developer	Non Developer	
C8	2.55	2.47	0.692
C9	2.85	2.68	0.368
C10-1	3.37	3.22	0.473
2	2.84	2.95	0.571
3	3.36	3.34	0.931
4	3.62	3.67	0.808

Table 4.2 Cont.

Variable	Mean Attitude		T-Value
	Developer	Non Developer	
5	3.29	3.27	0.896
6	4.31	3.95	0.024*
7	2.71	2.70	0.965
8	2.82	3.09	0.215
9	4.14	4.21	0.654
10	3.37	3.60	0.183

Table 4.3 Comparison Of Attitudes By Response

Variable	Mean Attitude		T-Value
	Responded	Not Responded	
C8	3.30	1.78	0.000**
C9	3.52	2.08	0.000**
C10-1	3.58	2.09	0.006**
2	3.25	2.51	0.000**
3	3.63	3.05	0.001**
4	3.76	3.52	0.187
5	3.49	3.10	0.051
6	4.09	4.22	0.420
7	2.53	2.86	0.097
8	2.89	2.98	0.672
9	4.14	4.21	0.626
10	3.60	3.35	0.173

The differences in variable distributions can be illustrated graphically for each question. However it is only possible to draw conclusions from those comparisons that are statistically significant. These are shown in the form of a comparative bar chart.

The first comparison with a high significance level in table 4.1 is for variable C9. This comparison is shown in Figure 4.36 and indicates that the smaller companies anticipate more strongly than the larger companies that urban regeneration work will become more important to them in the future.

The next comparison with a high significance level is for statement 2 of variable C10 and is shown in Figure 4.37. The results suggest that smaller companies tended to agree with the statement that most construction companies had reacted positively to urban renewal whilst larger companies disagreed.

Comparison between the responses from the two groups divided on the basis of turnover also showed a high level of significance for statement 3 of QC10. Here, although there was overall agreement with the statement from both groups, smaller companies agreed more strongly than larger companies with the

statement that the nature of urban renewal had led to a new flexibility in the approach of construction companies to renewal work. This is shown in Figure 4.38.

The next significant comparison is statement 8 of QC10. The results here (see Fig. 4.39) suggest that smaller companies envisage the use of specialised divisions as the best way for construction companies to work in renewal areas whereas larger companies disagree with this statement.

Finally, Figure 4.40 shows the comparison between the responses from the two groups for statement 10 of QC10, which has a high significance level. Here both distributions are skewed towards agreement. Smaller companies, however, show a greater skew than larger companies. They thus feel that urban renewal has led to a more innovative attitude by the construction industry. This view is shared by the larger companies, although not to the same extent.

Only one statement in the data of Table 4.2. showed a high level of significance. This was statement 6 which related to the increase in willingness of construction companies to undertake property development. Both subgroups agreed that there had

A Comparison Of Varying Attitudes To Variable C9 Amongst Companies Of Different Size

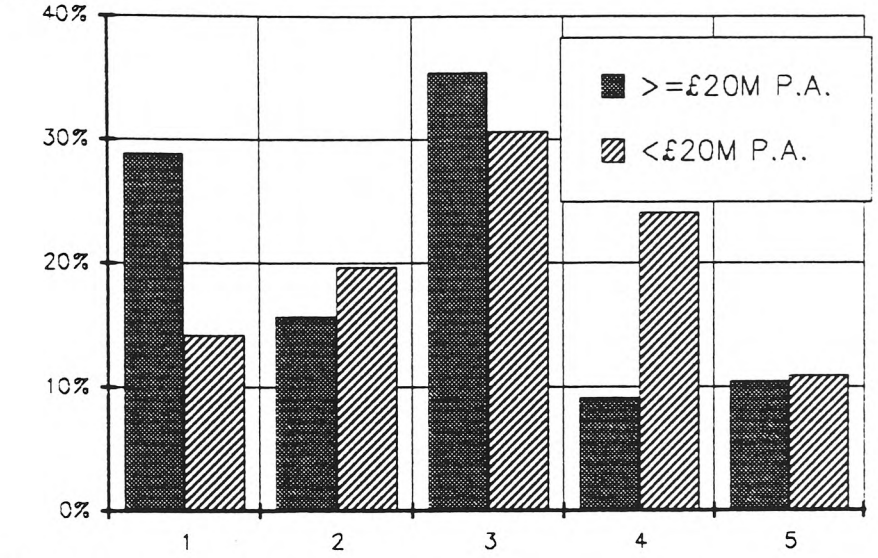


Figure 4.36

A Comparison Of Attitudes Towards Variable C10-2 Between Companies Responding To U.R. And Those That Have

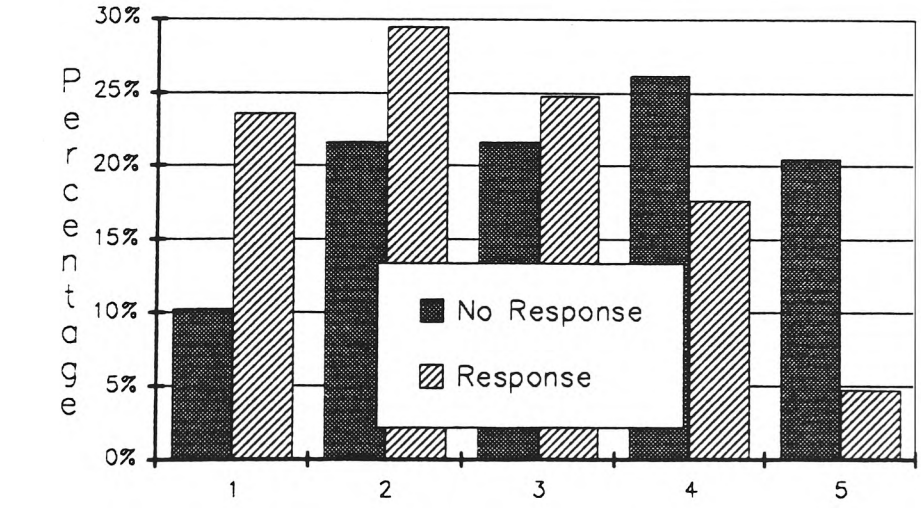


Figure 4.37

A Comparison Of Attitudes Towards Variable C10–3 Amongst Companies Of Varying Size

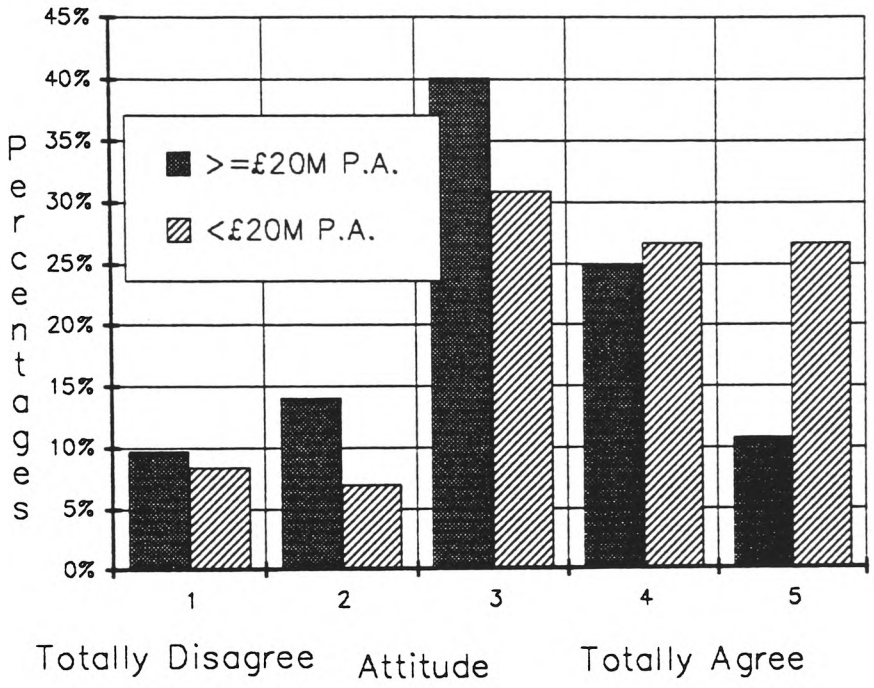


Figure 4.38

A Comparison Of Attitudes Towards Variable C10–8 Amongst Companies Of Varying Size

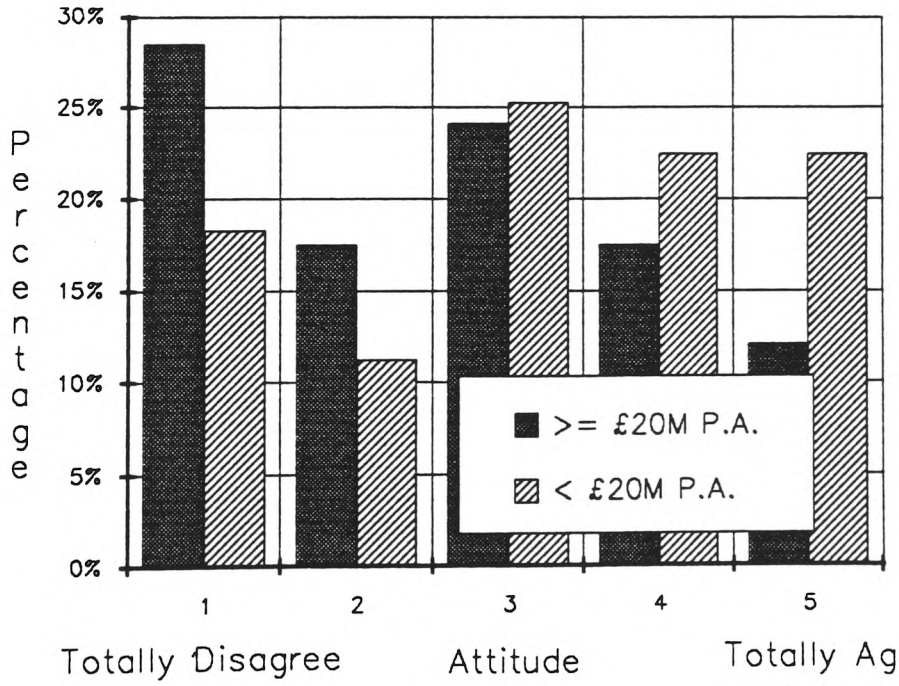


Figure 4.39

been such an increase in willingness, but, not surprisingly, it was those companies that carried out development work themselves that agreed most strongly. The comparison is shown in Figure 4.41.

The final comparisons were between companies that had or had not responded to urban renewal. Of the twelve comparisons six were found to be significant (see Table 4.3). The first two of these related to present and future importance ratings for urban renewal. These results are presented in Figures 4.42 and 4.43 respectively and show that, as might have been expected, those companies that had responded to urban renewal rated it as much more important to them, both currently and in the future, than those companies that had not responded to urban renewal.

Comparisons between the responses from these two groups also have a high level of significance for statement 1 of QC10. Those companies that considered that they had responded to urban renewal gave responses which showed a multi-peaked distribution (Fig. 4.44) whereas the distribution of the response from the second group was skewed towards the agreement end of the scale. Thus, companies that had not responded to urban renewal appeared to think that

A Comparison Of Attitudes Towards Varicble C10—10 Amongst Companies Of Varying Size

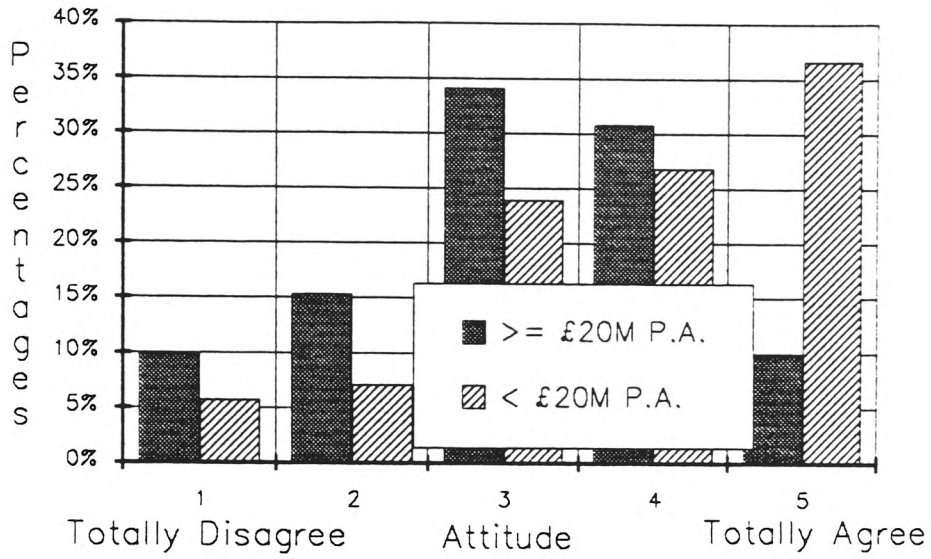


Figure 4.40

A Comparison Of Attitudes Towards Variable C10—6 Between Developers And Non—Developers

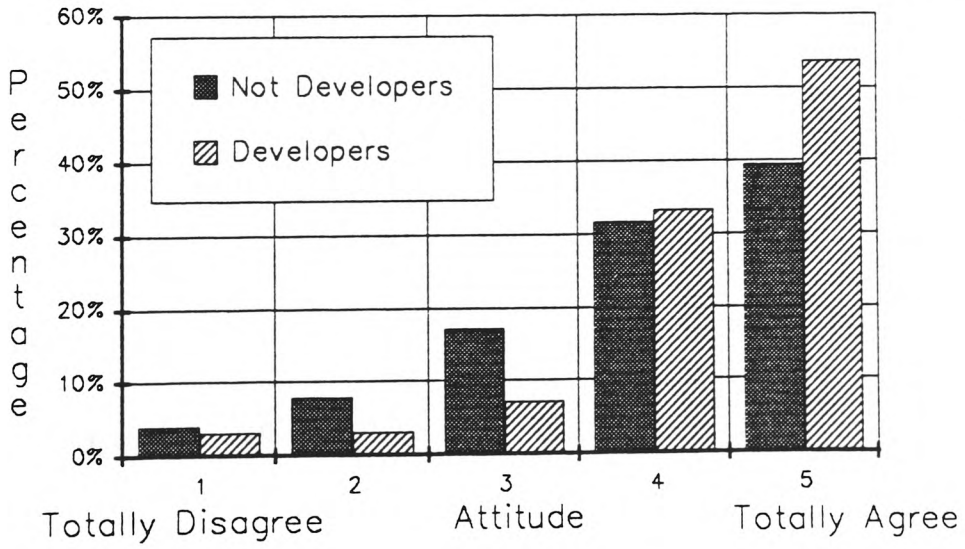


Figure 4.41

A Comparison Of Attitudes Amongst Responding And Non-Responding Companies To Variable C8

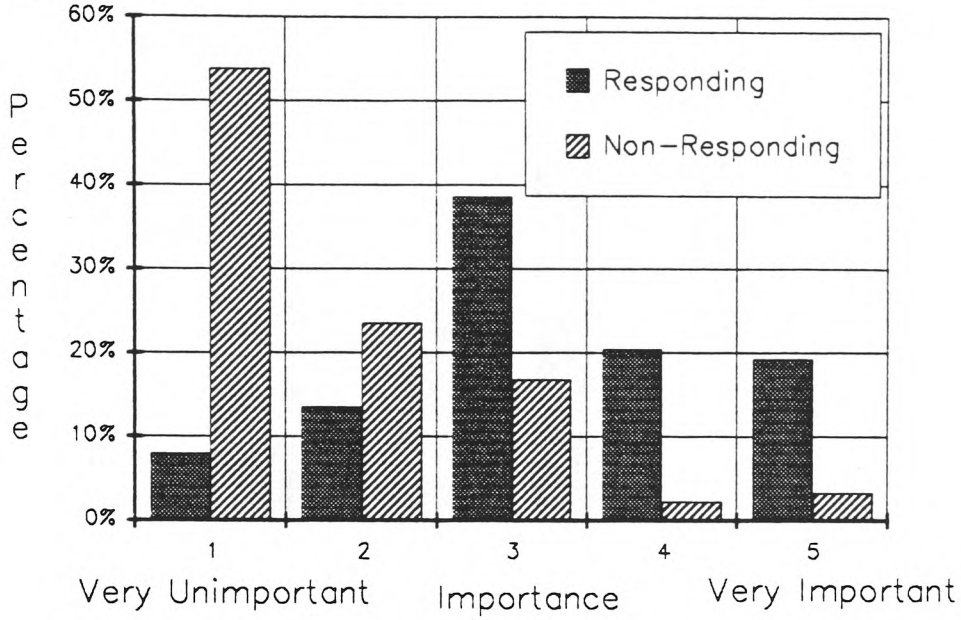


Figure 4.42

A Comparison Of Attitudes Amongst Responding And Non-Responding Companies To Variable C9

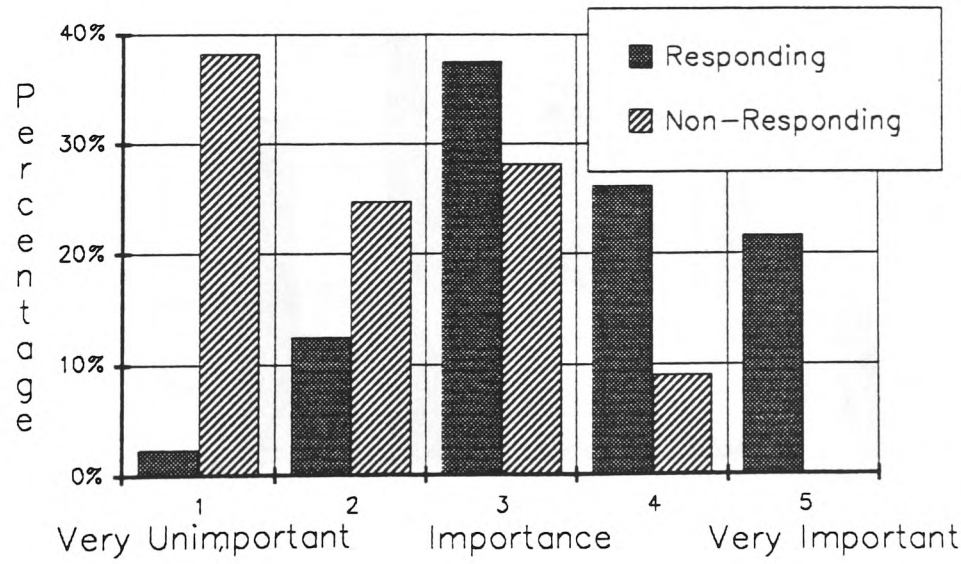


Figure 4.43

A Comparison Of Attitudes Towards Variable C10–1 Between Companies That Have Responded To U.R. And Those That Have Not

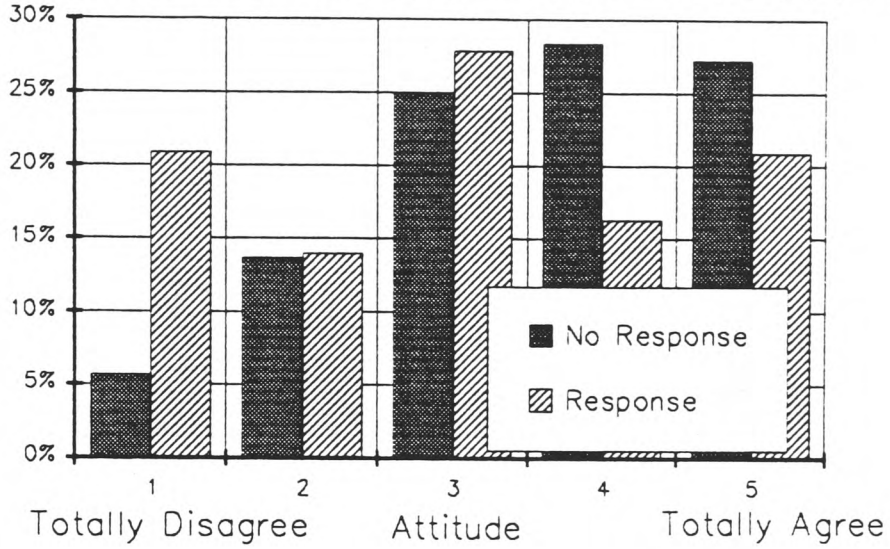


Figure 4.44

A Comparison Of Varying Attitudes Towards Variable C10–2 Amongst Companies Of Different Sizes

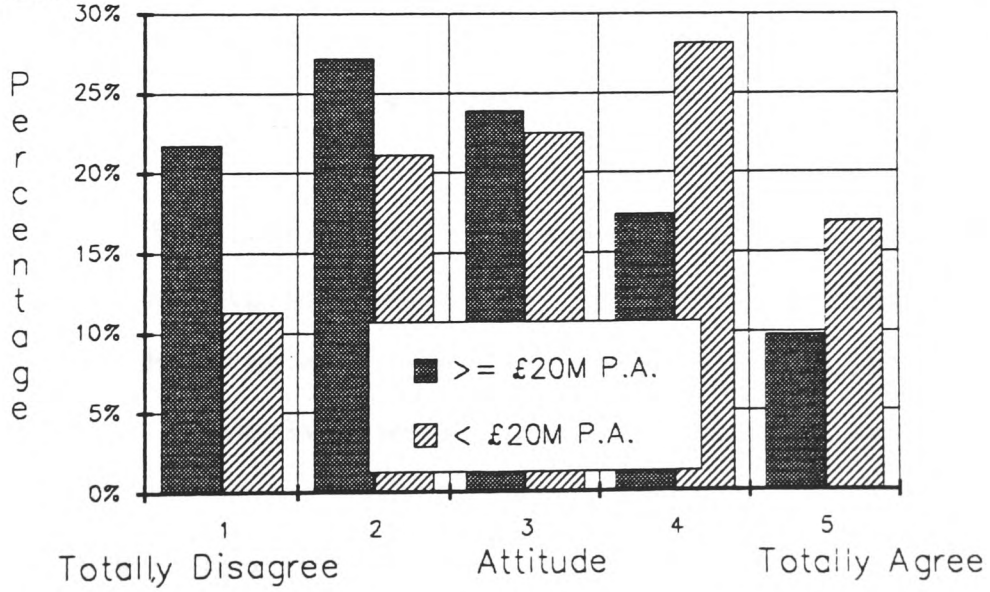


Figure 4.45

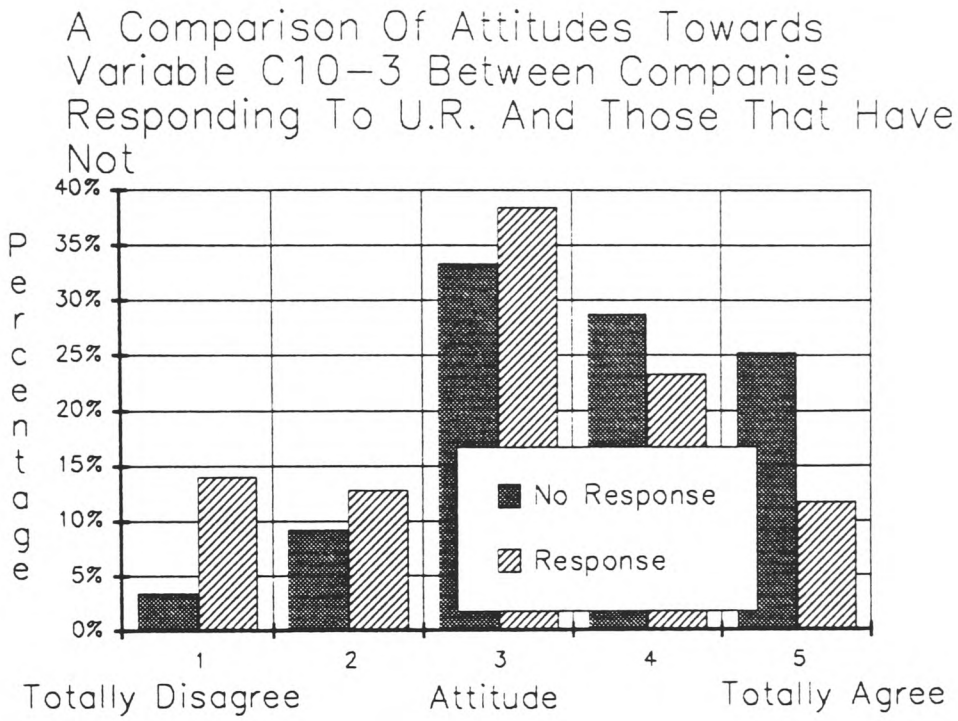


Figure 4.46

the increase in renewal work had led to changing attitudes by those companies involved whereas the companies who had responded to urban renewal gave an inconclusive reply to this question.

Figure 4.45 shows a similar comparison between the group responses tp statement 2 of QC10 In this case it appears that the group who had responded to urban regeneration themselves were less likely to believe that building companies had in general reacted positively to urban renewal and vice versa.

Finally, the comparison of the responses from these

two groups to statement 3 of QC10 also showed a high level of significance. Although both groups of companies agreed with the statement there was stronger agreement from the companies that had not responded to urban renewal. Thus, the non responding companies felt more strongly that there was a new flexibility in the approach of companies to urban redevelopment as a result of the nature of urban renewal. The comparison is shown in Figure 4.46.

4.5 Concluding Remarks

This chapter has presented what the author considers to be the principal results of the statistical analysis in a form which followed the structure and sequence of the questionnaire. As stated earlier the number of variables in the survey means that a very wide ranging analysis is possible by, for example, searching for different interrelationships between all the different variables. It would have been neither feasible nor meaningful to carry out such an analysis with regard to the aims of this project. Thus only the aims of the research have been considered and the analysis has been tailored to meet to these aims. This has resulted in much more concise and more relevant results.

Any comment in this chapter has been limited to the results obtained and factors that may have affected or influenced certain results. No conclusions have been drawn in relation to the overall aims and objectives of the research. Such conclusions are discussed fully in the next chapter which will also relate the findings from the survey to literature discussed in Chapter 2.

Chapter 5

Discussion And Conclusions

5.1 Introduction

In the previous chapters of this dissertation the aims of the research were stated, the background to the work was discussed, the methodology was defined and an analysis was undertaken. In this chapter findings from the analysis are discussed and are linked wherever relevant to the reports of previous workers in this area, which are outlined in Chapter 2. Conclusions are then drawn and proposals are made for possible future work in this area.

It is important that, throughout this chapter, the initial aims of the research are taken into account. These are as follows:

i. To evaluate the nature and extent of responses made by large building companies to urban renewal initiatives.

ii. To assess corporate attitudes within the building industry towards urban renewal.

Each aim will be considered using appropriate parts of the analysis.

5.2 A Discussion Of Building Companies Practical Responses To Urban Renewal

This section considers the practical responses of building companies towards urban renewal and the factors that affect how those companies respond.

Before discussing the actual nature of the responses made by companies to urban renewal the extent to which companies themselves felt that they had responded should be considered. Variable QD1 showed an almost equal split in the sample between those companies that felt that they had responded and those that felt that they had not responded. This represents a very high proportion of companies who considered that they had responded to urban renewal especially when compared with the much lower proportion of companies that had carried out any of the practical responses listed in the questionnaire. A reason for this anomaly could be that many of the innovations made by companies were not included in the questionnaire and thus not recorded in the analysis. If this is the case then such innovations must have been small scale as the most publicised innovations were included within the questionnaire. In fact, the qualitative data acquired from the questionnaire highlighted a number of such small

scale innovations which were not included within the quantitative sections of the questionnaire. These innovations varied from efficient risk management and good decision making to making technical appointments and developing loss making sites in anticipation of future construction work which would realise an overall profit. This last point was raised by Collins (see p.33) who noted that the aims of developers were to create a profit and also to obtain a land bank that would provide opportunities for further projects.

The extent of these innovations is difficult to determine but they help to explain the relatively high number of companies claiming to have responded to urban renewal. An alternative theory is based on the proposal made by Lansley that innovations are made from fear of being left behind by competitors rather than the anticipation of benefits. In this case it may be possible that companies are simply making a token gesture to the idea of responding to urban renewal as a way of satisfying themselves that they are innovative and progressive organisations.

When specific innovations are examined the extent of building company involvement with documented innovations is much lower. The first of these to

consider is company activity in Urban Develpoment areas. Howes and Lawless gave detailed descriptions of the way that Urban Development Corporations were intended to work. They described how the Urban Development Corporations would improve the working environment so that development could take place. At the time of the survey there were 11 U.D.C.'s in existence. The analysis showed the proportion of building companies carrying out work in each area. The proportion of company involvement ranged from 15% to 4% of the companies surveyed. These figures appear to be rather low in relation to the scale of some of the developments and the areas of the country covered. However it must be remembered that the survey is nationally based. If the regions are considered individually then the proportion of companies active in that area who were involved in local UDC's is much higher. The same is true of the analysis of the Enterprise Zones in existence at the time of the survey.

The analysis has shown, however, that the existence of an Urban Development Corporation is not regarded as a significant factor by building companies when setting up operations. This is explained by the fact that only a few of the companies in the survey were truly national companies operating throughout the

U.K. Thus the remaining majority in the sample are regionally based and would be unlikely to expand to other areas because of a U.D.C. This finding does not diminish the role of the U.D.C. but merely determines the relatively low importance of U.D.C.'s to the majority of the construction industry. The fact that nearly 10% (9.6%) of the companies surveyed stated that they had set up in a region because of a U.D.C. confirms that urban regeneration has had a marked effect on the direction and development of a significant fraction of the construction industry in the last few years. These are companies that have innovated to the greatest degree and rate urban renewal as an important sector of the market.

Before considering in detail the exact nature of these innovations it is necessary to examine regional variations in both urban renewal work and general building work. The general distribution of building work for the companies surveyed was given in Figure 4.6. This showed a predominance of companies' activities based in the South East of England and Greater London. Given the relatively high population density of the South East and the economic dominance that this region has over the rest of the U.K. this concentration in the distribution was to be expected. However, when the general distribution of building

work is compared with the distribution of urban renewal work (Fig. 4.16) there are considerable differences. The South East, the South West and East Anglia, all of which are either predominantly rural or have been heavily developed over the last forty years, show a considerably lower proportion of companies working in that region involved with urban renewal when compared with the other regions.

The areas where the greatest proportion of companies who were active in that region were involved with urban renewal, were the North West of England, Northern Ireland and Greater London. Scotland and Northern England also showed a high proportion of companies involved in urban renewal work. These are all regions that have well established urban areas and have suffered severe urban decay in the past. They are also areas that have been identified by local and central government as requiring regeneration.

However, when the proportion of urban renewal work is compared with the value of renewal work there are some anomalies. Although by far the greatest expenditure on urban renewal work is in Greater London, the South West of Yorkshire shows the greatest expenditure relative to the number of

companies actively involved in renewal work. This is followed closely by Greater London, South West England, North West England and the West Midlands. Thus, these are areas where companies working in urban renewal have the largest turnovers.

It appears that in areas such as South West Yorkshire and South West England there is a relatively low involvement in urban renewal work. Thus, companies undertaking such work are each taking a large share of whatever projects are available as there is less competition. In areas such as Greater London and the North West there are relatively large numbers of companies involved in urban renewal and a large amount of regeneration work available. This accounts for the high urban renewal turnover per company. Indeed, it may be the prospect of this high turnover in renewal work which is responsible for the high involvement rate.

The distribution of activity in U.D.C.'s and the regional distributions lead to the conclusion that the regions where a building company are most likely to be involved with urban renewal are Greater London and the North West of England. These are also the areas with the largest amount of regeneration work in progress. It is for work in these regions that

building companies would be expected to innovate most due to the high level of competition in the urban regeneration field.

Having established where building companies are undertaking urban renewal work it is now necessary to determine what innovations, if any, have been made. Of the three general responses that were examined (QB5, QB6 and QB7) the largest proportion (12.2%) were involved with a private sector agency set up specifically for the purpose of promoting urban regeneration. This was followed followed closely by involvement with consortia (10.8%) and then the use of part of the organisation for renewal work (5.6%). The smaller proportion of companies taking the latter approach is not surprising as the setting up of part of the organisation for urban renewal work is a considerable undertaking for a company to make particularly if it is unsure of the future of the market. The other two options may be more popular because they provide external expertise for the company and reduce the risk for each individual company involved with urban renewal work.

More detailed innovations were analysed in QB9. The analysis showed that traditional building contracting was the major type of activity (in relation to

turnover) carried out by the greatest number of companies in urban areas. This was followed by speculative development with very few companies using any form of partnership or joint venture. This is despite the large number of documented examples of partnership schemes in both academic and trade journals. In fact inspection of the data from the survey does show that of those companies that have responded to urban renewal the use of partnership schemes is more common. However, when examining building companies in general, as represented by the sample, the use of such innovations is distinctly limited with the traditional approach predominant.

The analysis also considered the type of construction providing the greatest turnover for companies undertaking urban renewal work. New domestic construction was predominant followed by new commercial and new industrial work. This was as expected, however domestic refurbishment was the major source of turnover for a surprisingly large proportion (13.3%) of companies. When considered with the proportion of companies getting their greatest turnover in urban areas from commercial and industrial refurbishment (8.0% and 1.8% respectively) it can be seen that refurbishment is a significant albeit small component of urban renewal.

A further selection of innovations was included in variable QD3. This showed similar results to QB9 and indicated the low numbers of companies involved with any of the innovations listed. The conclusion must be that, in relation to urban regeneration, these types of innovations are employed by only a few companies undertaking regeneration work.

5.3 A Discussion Of Building Company Attitudes To Urban Renewal

This section deals with the attitudes of building companies which were identified from the analysis and from the differences that occurred between the different subgroups within the sample. Most of section C of the questionnaire is devoted to determining corporate attitudes to urban renewal. It is the analysis of this section that provides the basis for this discussion.

As shown in the previous chapter a very high proportion of companies felt that urban renewal turnover had increased over the last decade both for the industry as a whole and themselves. A similar proportion of companies expected urban renewal

turnover to increase throughout the next decade. Again this was for both themselves and the building industry generally. When the timing of the questionnaire is considered this result is what would be anticipated. The years 1989 and 1990 experienced considerable economic growth in the U.K. and a large amount of work was available to the building industry of which a considerable amount was involved with urban renewal. There was thus a great deal of confidence that turnover would continue to increase. This was especially true for urban renewal work as the late 1980's saw a vast increase in the number and size of regeneration schemes. There can be no doubt that a different result would have been found had the survey been carried out during a period of recession such as the that experienced since the survey. This subject is discussed in more detail in the section covering future research at the end of this chapter.

The nature of urban renewal was examined next. This showed that it was seen as traditional in nature by the majority of companies. This confirms the findings discussed in the previous section showing that urban renewal work is predominantly new work carried out using traditional methods. Looking forward, the general opinion was that there would be little change in the nature of urban renewal work in the future

although a significant number of companies expected such work to become increasingly specialised. Very few companies expected urban renewal work to become less specialised.

Taking account of the whole of building activity, urban renewal was viewed as relatively unimportant both at present and in future. However there was a small shift in attitudes with urban renewal expected to become more important to companies in the future. This reinforces the idea that the renewal market is of interest to a small proportion of building companies and the majority of companies appear to be satisfied with their current market role.

The comparative analysis showed that there was a significant difference in the importance rating of urban renewal between those companies that had responded to urban renewal and those that had not. This is not surprising as companies that have innovated are likely to view renewal as more important than those that have not. There was, however, no significant difference in importance rating between companies of different size. It might have been expected that larger companies that have the capacity and flexibilty to innovate in fundamental ways would have reacted in a more

positive manner than smaller companies and would thus rate urban renewal as relatively more important to them. However, it must also be remembered that larger companies often have more diverse interests and thus the urban renewal sector may be less important overall.

The series of statements used to assess corporate attitudes helped to confirm some of the results found earlier. The sample appeared to agree that there had been a change in the attitudes of companies involved in urban renewal over the last decade. When the group was subdivided into those that had innovated and those that had not it was found that the innovating companies agreed to a greater degree that attitudes had changed. Those companies not responding to urban renewal would probably have little understanding of innovations that had been made by others.

It was felt generally however, from the sample, that most construction companies had not reacted positively towards urban renewal. It would appear, therefore, that the recommendations contained the report for the House Builders Federation (see p.36) have not been implemented the by majority of building companies. There was, however, a significant difference in attitudes between larger and smaller

companies and between those companies that felt they had responded to urban renewal and those that felt they had not. Larger companies tended not to agree that there had been a positive response to urban renewal whereas smaller companies tended to agree. This may be due to a difference in perception determined by the size of the organisation. Larger companies may regard only high profile innovations, such as setting up specialist sections or becoming involved with consortia, as responses to urban renewal. When they observe their competitors they see only a few companies taking this approach, as many of these activities are outside the scope of smaller companies. Smaller companies may envisage more small scale actions and changes in strategy as responses to urban renewal in addition to the high profile actions of their larger competitors. They thus feel that a large number of companies have taken a positive attitude towards urban renewal. Alternatively, smaller companies, having little involvement with large scale urban renewal, may have been convinced, due to the literature in trade journals and well publicised Government initiatives, that many building companies were becoming involved in this activity. Larger companies that were working in large scale urban regeneration would have realised that this was not the case.

This last point is reinforced by comparison of the responses to QC2 from companies that had responded to urban renewal and companies that had not. Here innovating companies disagreed that there had been a positive response to urban renewal whilst those that had themselves not responded to urban renewal agreed that there had. Smaller companies thus envisaged themselves to be in a minority, whereas in fact they are in a majority. That is, they perceived that although they themselves have not innovated with regard to urban renewal most other companies had. Again a possible reason for this is that, in the absence of factual data, such companies had been convinced by publicity that many other companies were working in regeneration whereas in practice this was not the case.

A similar pattern emerges when considering statement C10-3. Here there was overall agreement that urban renewal work had led to an increasingly flexible approach to the development of land from those companies involved in such work. Again, when the subgroups were considered there were found to be significant differences between smaller and larger companies and also between companies that had responded to urban renewal and those that had not. As

before it is the smaller companies that agree with the statement to a greater degree than the larger companies. It is also the companies that have not responded to urban renewal that tend to agree with the statement more than those that have responded. The reasons for these differences would appear to be identical with those given above for the previous statement. However as there was agreement with the statement both from the sample as a whole and from the sub groups analysed it is possible to be confident that the statement is generally valid. Thus there has been an increase in flexibility for those companies undertaking urban renewal work.

There was quite strong agreement also that work involving urban regeneration lends itself well to partnership work. This result is in agreement with the observations of writers such as Brimacombe (see p.42) who documented cases of partnership development. Thus those companies involved in urban regeneration should be well aware of the process even if they have not been involved in it themselves. Those companies not involved will also be aware of the use of partnerships through the widespread publicity that these partnerships attracted at the time, in the construction press.

When asked whether methods used in urban renewal could be adopted in other market sectors there was a an even spread of opinion, for the whole sample, with no clear overall agreement or disagreement. Both distributions appeared to be approximately normally distributed. Thus opinion is divided on this issue throughout the sample.

In contrast it is possible to draw some very positive conclusions from statement C10-6. Here there was overwhelming agreement with the proposal that building companies had been increasingly willing to undertake property development in urban areas. Also a comparative analysis of sub groups showed that a significant difference in opinion occurred between those building companies already carrying out development work and those not doing so. Although both groups agreed strongly with the statement, there was a greater degree of agreement from companies already involved with speculative development work than from those that were not. This difference in opinion might be expected as it probably arises from the different market knowledge of each type of company. As far as this research is concerned the difference in attitudes is unimportant as both sub groups agreed strongly with the statement. Thus the results from QC10-6 of the questionnaire do generally

support the results from statement C10-1 which indicated that there had been a change in the attitudes of companies undertaking regeneration work.

There was also overall agreement (QC10-7) that urban regeneration work in the future would not be limited. This confirms the results from QC2 which showed that a large majority of companies expected an increase in urban renewal work both for themselves and the industry generally. As before, however, the timing of the survey must be considered. A similar study carried out during a period of recession would probably not produce the same result. However there can be little doubt that the social and economic need for urban regeneration will continue although the opportunities for urban regeneration will depend very closely upon the prevailing economic climate. Whilst market conditions remain depressed there will be few opportunities for work of any kind.

In order to undertake urban renewal a strong argument can be put forward for the use of specialised divisions, in line with the observation made by Gates (see p.42) that specialist divisions were becoming increasingly used in urban renewal schemes. The results showed that the group as a whole tended to agree that such divisions were the best way

of carrying out renewal work. However the comparative analysis between subgroups showed a significant difference in attitudes towards this proposal. Surprisingly it was the larger companies, that have the size and flexibilty to create specialised divisions, that tended to disagree and the smaller companies tended to agree. The reason for this could be the same as that discussed for the earlier statements i.e. that the larger companies are answering with a greater degree of experience and smaller companies are answering on the basis of the well publicised actions of a few large companies. This theory is supported by events occurring during the year following the survey. The collaborating establishment for this research was Lovell Urban Renewal Ltd., a subsidiary of Y.J. Lovell Holdings Ltd. and a company set up to deal solely with urban renewal work for the Lovell group. Since this survey was carried out Lovell Urban Renewal Ltd. have been amalgamated with another Lovell subsidiary to form Lovell Partnership Homes Ltd. This company, as the name suggests, concentrates on residential partnership developments. This work is not confined to urban areas or to specified urban development areas.

The demise of Lovell Urban Renewal Ltd. indicates

that the division was not one of the more successful of the Lovell group. This would support the opinion of the larger companies in the sample who generally disagreed with the proposal that specialist divisions were the best way to undertake regeneration work. Alternatively the process may have been an attempt at rationalisation in the face of recession. This was a feature of building company reorganisation noted by Lansley and discussed in Chapter 2, although in this case the evidence would suggest the former reason to be the dominant one.

The role of local authorities and public bodies in urban renewal was generally felt, by the respondents to the questionnaire, to be inadequate. This was surprising since the initiatives promoted over the last decade have involved public organisations to a high degree. It does, however, agree with the findings of the report for the House Builders Federation (p.36) and also with Collins (p.33) both of whom called for greater local and central government support.

One possible reason for the low degree of satisfaction with the role of public organisations in urban renewal is what is seen as the bureaucratic nature of such bodies. This was stated by several

respondents as a reason for not becoming involved with regeneration work. The results contradict the findings of statement C10-4 which found that most urban renewal work was viewed as lending itself well to partnership developments which include local authorities. However when the proportion of companies claiming to carry out partnership work was examined it was found that few companies had direct experience of this type of work. It is likely, therfore, that the results of C10-9 are based upon dealings with public bodies which may have had little to do with urban renewal but which had crystallised attitudes

As previously discussed about 50% of the sample studied did feel that they had responded to urban renewal. The majority of these responses, however were of small scale and required minimal changes to the current operations of the companies involved. Only between 5% and 10% of the sample had made any fundamental innovations. Some of these types of innovation are noted by Lansley (p.29) in his study of changes in the construction industry as a whole. In particular he notes the requirement for companies to share risks and raise finance. The use of consortia and partnerships with both public bodies and private financial organisations meet this requirement and their occurrence has been recorded in

this research. The extent of their use, however, has been shown to be limited.

5.4 Summary

The findings of the research may be summarised as a series of points as follows:

i. Although approximately 50% of companies felt that they had responded to urban renewal the majority of these responses involved only slight adaptations and changes in working practice.

ii. Of the more fundamental responses, the use of consortia and joint venture schemes were the most common. These had the advantage for companies of sharing the risk involved with urban renewal and using external expertise rather than "in house" expertise.

iii. Of the companies who had responded to urban renewal the use of partnership schemes was also widespread. These share the same advantages as joint ventures and consortia.

iv. The use of specialist divisions within the

organisation was limited to a few companies (5.6%). Such innovations were seen to involve higher risk and require substantial reorganistaion within a company. They were also only an option for the largest companies in the sample i.e. those that had the ability to set up such divisions. Other innovations included making technical appointments within the organisation, association with private sector regeneration agencies and building at a loss in order to gain profit making work in the future. The redefining of marketing strategies and the use of quality management were also used to cope with the technical and financial aspects of regeneration work.

v. The majority of work carried out in areas of urban development was traditionally based i.e. with the company acting purely as a contractor. The work itself was dominated by new build and in particular domestic construction. Refurbishment accounted for approximately a quarter of all work carried out in urban renewal areas.

vi. The increase in construction turnover was seen as the main advantage of becoming involved with

renewal work. Other advantages included diversification and acquisition possibilities, the ability to undertake shared risk projects and the gratification of regenerating dilapidated urban areas. There was also an expectancy that urban renewal work would increase considerably in the future and that early involvement would lead to a market advantage later.

vii. The principal reason for not being involved with urban renewal work was given as location. Other reasons included the perceived specialised nature of the work, the dominance of large building companies in the field and the competitive nature of the work. Some companies, particularly, smaller companies tended to view urban renewal as the exclusive province of the larger companies and felt that they themselves would not be able to cope with the perceived difficult nature of urban renewal.

viii. More urban renewal work is available in North West England and Greater London than in other regions. These are also the locations of the most extensive urban renewal initiatives. The

average value of work per company operating in a region was greatest for South West Yorkshire, Greater London, North West England and South West England.

ix. Overall the urban renewal market was, at the time of the survey, considered as of relatively low importance by the sample. It was expected to remain relatively unimportant to the majority of companies in the future although its importance was expected to increase. In fact the amount of urban regeneration was expected to increase throughout the next decade.

x. The majority of companies did not expect the nature of renewal work to change much in the future.

xi. Most companies felt that the building industry in general had not responded positively to urban renewal.

xii. Building companies agreed that the growth of urban renewal had given companies a more flexible approach to urban redevelopment, and the use of partnerships was seen as an

efficient way of working in the urban renewal market.

xiii. Building companies showed an increase in willingness to undertake property development in urban areas.

xiv. The majority of companies felt that more could be done by the public sector to promote regeneration, although this attitude may have been the result of past experience with Local Authorities rather than with experience of urban regeneration partnerships.

xv. There was strong agreement from the sample that the growth in urban renewal had led to an increase in willingness of companies to adapt to new methods.

5.5 Suggestions For Further Research

The survey carried out as part of this research represents the innovations and attitudes of companies towards urban renewal at one particular period in time, i.e. the last quarter of 1989. Since the survey was carried the U.K. has suffered a period of severe recession which has had serious consequences for the

construction industry. There can be little doubt that attitudes towards urban renewal will have changed, possibly by a considerable amount, since the initial survey was carried out. One proposal for further research, therefore, would be to repeat the survey under the current economic conditions and combine the results with those from this work. Thus a longitudinal study could be achieved that would highlight the changes that occur in building company attitudes between periods of growth and periods of recession. If the study were to be repeated yet again at a later stage it would be possible to begin to identify trends relating to building industry involvement with urban renewal, and hence make some firm predictions of future activity in this area.

A second, and complementary, aspect for further study would be to examine the qualitative data in more detail. The survey used in this research was dominated by quantitative data with only a few questions asking for qualitative data. The low number of companies answering these questions meant that subjective written opinions were only received from a relatively small proportion of the sample. Although this data was of great interest to this research there was no way of determining whether the data was representative of the sample or not. It is proposed,

therefore, that a series of case studies be made of companies selected from the sample. In fact this extension of the work was anticipated by the current research and at the very end of the questionnaire respondents are asked whether or not they would be willing to participate in a case study at some time in the future. Of the total sample of 209 companies 51 indicated that they would be willing to participate in a case study.

REFERENCES

Alsayyad, N. & Rabbinowitz, M. (1988) The Concept Of Urban Renewal: Comparative Notes. *Housing Science* vol.12, no.2, p.83-100

Ashworth, G. (1987) Inner Cities - Their Rise And Fall. *Environmental Education And Information* vol.6, no.3, p.1-9

Bartlett, D. & Quine, P. (1989) *Approaches To Urban Renewal In The U.K And The U.S.A.* Chartered Institute Of Building Publications, London.

Bowley, M. (1986) *The British Building Industry* Cambridge University Press, Cambridge

Brimacombe, M. (1988) Private Enterprise Docks At Hull. *Surveyor,* p.14-21, July 21st

Campbell, M et al. (1988) Revitalizing The Inner Cities: A Local Authority Solution. *Local Government Studies* May/June, p.1-12

Caudle, D. (1987) Overcoming The Inhibitors To Inner City Development. *Property Management* vol.4, no.1, p.15-22

Churchill, G.A. (1979) *Marketing Research: Methodological Foundations* Dryden Press, Illinois

Collins, C.J. (1986) Large Scale Urban Renewal: A Developers Viewpoint *Built Environment* vol. 12 no. 4, p. 208-215

Couch, C. and Morton, R. (1988) Regional Recession And The Structure Of The U.K. Construction Industry. *B.I.S.S.* vol 9, University College, London

de Vaus, D.A. (1986) *Surveys In Social Research* , George Allen and Unwin Publishing Ltd. London.

D.O.E. (1984) *Survey Of Derelict Land 1982.* Department of the Environment, London.

Dixon, J. et al (1987) *A Handbook Of Social Science Research* Oxford University Press, Oxford

Eppink, D. (1975) Flexibility: A Necessary Complement To Planning *European Institute For Advanced Studies In Management* Working Paper 1975-24

Falk, N. (1986) Baltimore And Lowell: Two American Approaches *Built Environment* vol. 12 no. 3, p.145-152

Fink, A. and Kosecoff, J. (1985) *How To Conduct Surveys* Sage Publications, London

Gates, J. (1985) Urban Renewal: Building Innovation. *House Builder* , p.16-21, May

Gerrard R. (1988) The Manchester Pheonix Initiative Limited. *Property Management* vol.5, no.4, p.355-358

Hall P. (1975) Urban And Regional Planning, Pelican Books, London

Howes, C.K. (1988) Urban Regeneration Initiatives In England. *Land Development Studies* no. 5, p. 57-65

Inner City Commission (1986) *Private Housebuilding In The Inner Cities* , a report by an Independant Commission prepared for the Housebuilders Federation

Key, T. (1988) The Development Climate And Large Scale Building *Built Environment* vol. 12 no. 4, p. 234-248

Kivell, P.T. & Mckay, I. (1987) Public Ownership Of Urban Land *Transactions Of The British Institute Of Geographers* vol. 13, part 2, p.165-178

Lovell (1987) *Pathways To Partnership: Opportunities And Achievements In Urban Redevelopment With Lovell* Lovell Partnerships Ltd. Swindon

Lovell (1988) *Inroads: Strategies And Solutions For Partnership Development With Lovell* Lovell Partnerships Ltd. Swindon.

Lancaster, D. (1988) Cooperation: The Way Ahead. *House Builder* , June, p.32,36,90

Lansley, P.R. (1987) Corporate Strategy And Survival In The U.K. Construction Industry. *Construction Management And Economics* no.5, p.141-155

Lansley, P.R & Quince, T. (1981) Organisational Responses To A Major Recession. *Construction Papers* , vol.1, no.2

Lawless, P. (1988) Urban Developent Corporations And Their Alternatives. *Cities* vol. 5 no. 3, p.277-289

Likert, R. (1932) A Technique For The Measurement Of Attitudes. *Archive Of Psychology,* no.14

Loveless, J. (1987) *Why Wasteland ?* Adam Smith Institute, London

Mann, P. (1985) *Methods Of Social Investigation* Basil Blackwell Ltd. London.

Moor, N. (1988) Stakes Rise In The Numbers Game. *Building Housing Supplement* p.22-23, 18th March

Norusis, M.J. (1988) *SPSS/PC+ V2.0 Base Manual* SPSS Inc. Chicago

Opppenheim, A.N. (1966) *Questionnaire Design And Attitude Measurement* Heineman, London

Peppinster, C. (1988) Five Budding Projects For New 'Group Of 11'. *Building,* p.7, 11 March 1988

The Pheonix Initiative (1987) *PHO1-Brief On The Activities Of The Pheonix Initiative* London

Ragget, B. (1986) Post War Urban Renewal: Past And Present Partnership Schemes. *Built Environment* vol.

12 no. 4, p. 189-197

Relph-Knight, L. (1985) Inner Cities: The Story So Far. *Refurbishment* , p.15-17, 28th November

Rose, E. (1986) Urban Development Grants. *Town Planning Review* vol. 57 no.4, p.440-457

Sudman, P. and Bradburn, K. (1979) *Improving Interview Method And Questionnaire Design* Jossey-Bass, London

Sudman, P. and Bradburn, K. (1982) *Asking Questions* Jossey-Bass, London

Tym R. et al (1988) *Evaluation Of Derelict Land Grant Schemes* Roger Tym and Partners, London

Turner, D. (1987) The Construction Industry In Britain. *The Midland Bank Review* p.16-23

Welch, L. (1988) Multi-Million Pound Birmingham Revitalisation Planned. *Building* p.5, 1 April

Weisberg, H. et al (1977) *An Introduction To Survey Research And Data Analysis* W.H. Freeman & Co. London

APPENDIX A

THE POLYTECHNIC OF WALES
URBAN REGENERATION AND THE BRITISH CONSTRUCTION INDUSTRY
SURVEY FORM

This questionnaire forms part of a research project currently being carried out by the Department of Civil Engineering and Building at the Polytechnic of Wales.

For the purposes of this questionnaire Urban Regeneration can be defined as work carried out in urban areas fulfilling each of the following :

1. The area must have a defined boundary and be identifiable as an area designated for regeneration.
2. Some promoting agency, either publicly or privately funded, must have been set up to administer the regeneration of the area.
3. This agency must have extraordinary powers and/or funding.

Even if your organisation carries out little or no work in such areas we would be grateful if as much of the questionnaire as possible could be completed.

All the information provided will be treated in the strictest confidence and no information regarding any individual organisation will be published. This questionnaire will be destroyed upon completion of the research.

Section A

This section examines the general nature of the responding organisation.

A1

Name of the organisation :.....
.....

A2

Address :.....
.....
.....

A3

Telephone :.....

A4

Please give the approximate group turnover for the previous financial year :.....

A5

Which of the following construction activities is the organisation involved with (please tick) :

1.New Domestic Building	[ ]	6.Refurbishment	[ ]
2.New Commercial Building	[ ]	7.Maintenance	[ ]
3.New Industrial Building	[ ]	8.Piling\Foundations	[ ]
4.Property Development	[ ]	9.Civil Engineering	[ ]
5.Restoration	[ ]	10.Other	[ ]

If "Other" box is ticked please describe this activity :.....
.....
.....

A6
Which of the activities listed above provides the greatest annual turnover (please ring the corresponding number) :
1 2 3 4 5 6 7 8 9 10

A7
Which of the activities listed above provides the greatest annual pre tax profit (please ring the corresponding number):
1 2 3 4 5 6 7 8 9 10

A8
Which of the following construction related activities is the organisation involved with (please tick) :

Aggregates	[ ]	Mechanical and Electrical	
Asphalt	[ ]	Services	[ ]
Cement	[ ]	Open Cast Mining	[ ]
Concrete	[ ]	Plant Hire	[ ]
Deep Mines	[ ]	Process Engineering	[ ]
Others	[ ]	Steel Supply	[ ]

If "Others" box is ticked please describe this activity :....
.....
.....

A9
In which of the following areas of the U.K. does the organisation regularly carry out work in (please tick column A and if more than one region is ticked please indicate an approximate % turnover for each region in column B)

1.East Anglia (Cambs,Norfolk,Suffolk)	[ ]	[ ]
2.East Midlands (Derby,Leics,Lincs,Northhants,Notts)	[ ]	[ ]
3.Greater London (London Boroughs)	[ ]	[ ]
4.West Dngland (Cheshire,Lancs, Greater Manchester,Mersey)	[ ]	[ ]
5.Northern England (Cleveland,Cumbria,Durham Nort`umberland,N Yorks,Tyne & Wear	[ ]	[ ]
6.Northern Ireland	[ ]	[ ]
7.Scotland	[ ]	[ ]
8.South East England (Beds,Berks,Bucks,E Sussex,Essex, Isle of Wight,Oxon,Surrey,W Sussex,Hants)	[ ]	[ ]
9.South West England (Avon,Cornwall,Devon,Dorset, Somerset,Wilts,Gloucs)	[ ]	[ ]
10.South West Yorkshire & Humberside	[ ]	[ ]
11.Wales	[ ]	[ ]
12.West Midlands (Hereford & Worcs,Salop,Staffs, Warwicks,W Midlands)	[ ]	[ ]

A10
Which of the regions listed above accounts for the greatest turnover (please ring the corresponding number):
1 2 3 4 5 6 7 8 9 10 11 12

A11
Is your organisation a subsidiary of another company or group of companies ? :

Yes [ ] No [ ]

A12
Is your organisation a parent or controlling company for a group of subsidiaries or associated companies ? :

Yes [ ] No [ ]

A13
In what way is the organisation structured (please tick) :

1.Through regional divisions [ ]
2.Through activity related divisions [ ]
3.Both of the above [ ]
4.Single organisation [ ]
5.None of these [ ]

If box 5. is ticked please describe further :.....
.....
.....
.....
.....

A14
Please indicate the number of permanent management staff employed by the organisation :.....

Section B
This section relates to current work involving some element of property development and/or commercial, industrial and domestic building activities.

B1
In which of the following Urban Development Corporations is work currently being undertaken (please tick) :

London Docklands	[ ]	Tyne and Wear	[ ]
Merseyside	[ ]	Bristol	[ ]
Cardiff Bay	[ ]	Sheffield	[ ]
Teeside	[ ]	Black Country	[ ]
Central Manchester	[ ]	Leeds	[ ]
Trafford Park	[ ]		

B2
Has the setting up of an Urban Development Corporation been a critical factor in the decision to set up operations in that area :

Yes [ ] No [ ]

B3
In which designated Enterprise Zones is work currently being carried out in :

Corby	[ ]	Tyneside	[ ]
Dudley	[ ]	Wakefield	[ ]
Glanford	[ ]	Wellingborough	[ ]
Hartlepool	[ ]	Workington	[ ]
Isle of Dogs	[ ]	Invergordon	[ ]
Middlesborough	[ ]	Tayside	[ ]
N.E. Lancashire	[ ]	Clydebank	[ ]
N.W. Kent	[ ]	Inverclyde	[ ]
Rotherham	[ ]	Londonderry	[ ]
Salford/Trafford	[ ]	Belfast	[ ]
Scunthorpe	[ ]	Delyn	[ ]
Speke	[ ]	Milford Haven	[ ]
Sunderland	[ ]	Swansea	[ ]
Telford	[ ]		

B4
In which other areas designated for urban redevelopment have projects been carried out in :

.....
.....
.....
.....

B5
Is any part of the organisation devoted entirely to work involving urban regeneration alone :

Yes [ ] No [ ]

B6
Is the organisation involved with any consortium of construction companies formed to undertake work involving urban renewal :

Yes [ ] No [ ]

B7
Is the organisation actively involved with any private sector agency for the purposes of promoting urban regeneration :

Yes [ ] No [ ]

B8
Which of the following would best describe the nature of any projects currently being carried out in areas of urban regeneration (please tick all appropriate) :

1.Traditional building contracting [ ]
2.Speculative development [ ]
3.Partnership development with a public organisation [ ]
4.Partnership development with a private sector financial institution [ ]
5.Partnership development involving both private and public sector parties [ ]
6.Joint venture with another construction company [ ]
7.Other [ ]

If "Other" please describe :.....
.....
.....
.....
.....

B9
Which of the descriptions listed above would account for the greatest turnover carried out in areas of urban regeneration (please ring the corresponding number):
1 2 3 4 5 6 7

B10
Of the work carried out in these areas , which accounts for the greatest turnover (please tick):

New Domestic [ ] Refurbished Domestic [ ]
New Industrial [ ] Refurbished Industrial [ ]
New Commercial [ ] Refurbished Commercial [ ]
Other [ ]

If "Other" please describe :.....
.....
.....
.....
.....

B11
Does any of the work currently carried out in urban areas rely upon the provision of any form of grant aid in order to make the scheme viable :

Yes [ ] No [ ]

If the answer is "No" then please proceed to Section C

B12
Approximately how much current work is reliant upon the provision of grant aid in urban areas :

1%-10%	[ ]	51%-60%	[ ]
11%-20%	[ ]	61%-70%	[ ]
21%-30%	[ ]	71%-80%	[ ]
31%-40%	[ ]	81%-90%	[ ]
41%-50%	[ ]	91%-100%	[ ]

If possible please give a figure for the ammount of grant aid that the organisation receives :.....
.....

Section C

This section is intended to examine corporate attitudes held by construction companies to urban regeneration work in the fields of domestic , commercial and industrial construction.

C1

Has the turnover generated from projects involving urban regeneration work increased or decreased over the last ten years both for the industry generally and for the organisation.

Generally	Increased [ ]	Decreased [ ]
Organisation	Increased [ ]	Decreased [ ]

C2

Do you expect the turnover generated from projects involving urban regeneration work to increase or decrease over the next ten years :

Generally	Increase [ ]	Decrease [ ]
Organisation	Increase [ ]	Decrease [ ]

C3

Which of the following the following areas account for any urban renewal work undertaken by the organisation and what is the approximate value of this work :(please tick the appropriate boxes in column A and provide values in column B)

		A	B
1.	East Anglia	[ ]	[ ]
2.	East Midlands	[ ]	[ ]
3.	Greater London	[ ]	[ ]
4.	North West England	[ ]	[ ]
5.	Northern Ireland	[ ]	[ ]
6.	Northern England	[ ]	[ ]
7.	Scotland	[ ]	[ ]
8.	South East England	[ ]	[ ]
9.	South West England	[ ]	[ ]
10.	South West Yorkshire	[ ]	[ ]
11.	Wales	[ ]	[ ]
12.	West Midlands	[ ]	[ ]

C4

In which of the areas listed above would the organisation say that most urban regeneration work will be carried out over the next ten years (please tick the corresponding numbers):

1 2 3 4 5 6 7 8 9 10 11 12

C5

Is the nature of urban regeneration work currently very similar to the nature of traditional projects or of a more specialized nature :

Traditional [ ] Specialized [ ]

C6

Would the organisation expect the nature of urban regeneration work in general to become :

More specialized [ ]
Less specialized [ ]
Stay the same [ ]

C7
Would the organisation consider devoting part of its structure to only urban regeneration projects in the future :

Yes [ ] No [ ]
Already done so [ ]

C8
How important does the organisation consider urban regeneration work currently to be to them (please ring a number on the scale 1 to 5) :

Very important 5 4 3 2 1 Not important

C9
How important does the organisation envisage that urban regeneration work will become to them (please ring) :

Very important 5 4 3 2 1 Not important

C10
Would the organisation agree or disagree with the following statements :

1. The growth of urban regeneration over the last ten years has led to a change in the attitudes of construction companies involved in this kind of work.

Agree 5 4 3 2 1 Disagree

2.Most construction companies have reacted positively to urban renewal work.

Agree 5 4 3 2 1 Disagree

3.The nature of urban regenation work has led to a new flexibility in the approach of construction companies to the development of land in urban areas.

Agree 5 4 3 2 1 Disagree

4.Most work involving urban regeneration lends itself well to partnership developments.

Agree 5 4 3 2 1 Disagree

5.Methods employed in urban regeneration work could also be used in other areas of the industry.

Agree 5 4 3 2 1 Disagree

6.Over recent years there has been an increase in the willingness of construction companies to expand into property development in urban renewal areas.

Agree 5 4 3 2 1 Disagree

7.The future of urban regeneration work in the U.K. is limited.

Agree 5 4 3 2 1 Disagree

8.The use of specialised urban renewal divisions is the best way for construction companies to involve themselves with urban renewal work.

Agree 5 4 3 2 1 Disagree

9.More could be done by the public sector to help promote urban regeneration work.

Agree 5 4 3 2 1 Disagree

10.Urban regeneration has caused an increase in the willingness of the construction industry to adapt to new methods of working and diversify into areas such as development and design .

Agree 5 4 3 2 1 Disagree

Section D

This section is intended to examine the nature of any responses that may have been made to urban regeneration by the responding organisations.

D1

Has the organisation made any response whatsoever to the issue of urban regeneration :

Yes [ ] No [ ]

D2

Is any part of the organisation devoted entirely to the development of land and the construction of buildings within deprived urban environments :

Yes [ ] No [ ]

D3

Is any part of the organisation involved in any of the following :

A consortium of construction companies devoted to promoting urban regeneration 1. within a certain locality [ ]
2. nationally [ ]

A joint venture company set up with a private sector developer [ ]

A joint venture company set up with a local authority [ ]

Any private sector organisations devoted to urban regeneration through the use of land assembly [ ]

D4
If the organisation believes that it has made a positive response to urban regeneration please list , briefly , the advantages the organisation envisages :.....
.....
.....
.....
.....
.....
.....
.....
.....

D5
Please give a brief description of the way in which the organisation has responded to urban regeneration work :.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

D6
If no positive response has been to urban regeneration what reasons can be given :.....
.....
.....
.....
.....
.....
.....
.....
.....

Section E
This section is devoted only to feedback regarding the nature of the questionnaire

E1
Has this questionnaire been easy or difficult to complete :

Difficuilt 5 4 3 2 1 Easy

E2
Briefly , what are the major faults with the questionnaire :.
.....
.....
.....
.....
.....

Thank you for the cooperation of your organisation in the carrying out of this questionnaire. Access to the research findings will be made to all organisations expressing an interest.

Finally, a limited number of organisations could be selected for inclusion into the research project as case studies subject to completion of the questionnaire analysis.If approached would your organisation be willing to cooperate with a more detailed analysis to be included in the research as a case study.

Yes [ ] No [ ]

APPENDIX B

QUESTIONNAIRE SURVEY DATA

The data presented in this appendix represent the basic descriptive statistics for each variable in the questionnaire. For the most part these involve frequency distributions of the responses to each question. For two questions however, mean values are given along with the standard deviation, range, maximum and minimum. The output is that provided directly by the statistical analysis software, i.e. SPSS PC+.

Section A

A4 Turnover

Number of Valid Observations (Listwise) = 194.00

Variable TURNOVER Company Turnover in 01000's

Mean	59062.309	Std Dev	129577.079
Range	988000.000	Minimum	3000
Maximum	991000	Sum	11458185.000

Valid Observations - 194 Missing Observations - 15

A5-1 New Domestic Building

A51 New Domestic Building

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Domestic Building	1	50	23.9	24.0	24.0
Domestic Building	2	158	75.6	76.0	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A5-2 New Commercial Building

A52 New Commercial Building

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Commercial Buildi	1	46	22.0	22.1	22.1
Commercial Building	2	162	77.5	77.9	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A5-3 New Industrial Building

A53 New Industrial Building

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Industrial Buildi	1	54	25.8	26.0	26.0
Industrial Building	2	154	73.7	74.0	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A5-4 Property Development

A54 Property Development

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	90	43.1	43.3	43.3
No Property Developm	1	118	56.5	56.7	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A5-5 Restoration

A55 Restoration

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Restoration	1	118	56.5	56.7	56.7
Restoration	2	90	43.1	43.3	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A5-6 Refurbishment

A56 Refurbishment

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Refurbishment	1	53	25.4	25.5	25.5
Refurbishment	2	155	74.2	74.5	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A5-7 Maintenance

A57 Maintenance

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Maintenance	1	131	62.7	63.0	63.0
Maintenance	2	77	36.8	37.0	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A5-8 Piling/Foundations

A58 Piling\Foundations

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Piling\Foundation	1	192	91.9	92.3	92.3
Piling\Foundations	2	16	7.7	7.7	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A5-9 Civil Engineering

A59 Civil Engineering

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Civil Engineering	1	177	84.7	85.1	85.1
Civil Engineering	2	31	14.8	14.9	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A5-10 Other Activity

A510 Other Construction Activity

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Other	1	172	82.3	82.7	82.7
Other	2	35	16.7	16.8	99.5
	4	1	.5	.5	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A6 Activity Providing The Greatest Annual Turnover

A6 Activity Providing Greatest Annual Turno

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Other	0	8	3.8	4.1	4.1
New Domestic Buildin	1	72	34.4	36.7	40.8
New Commercial Build	2	54	25.8	27.6	68.4
New Industrial Build	3	20	9.6	10.2	78.6
Property Development	4	12	5.7	6.1	84.7
Restoration	5	1	.5	.5	85.2
Refurbishment	6	25	12.0	12.8	98.0
Civil Engineering	9	4	1.9	2.0	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

A7 Activity Providing The Greatest Annual Pre-Tax Profit

A7 Activity Providing Greatest Annual Pre-T

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Other	0	8	3.8	4.1	4.1
New Domestic Buildin	1	63	30.1	32.5	36.1
New Commercial Build	2	28	13.4	14.4	50.5
New Industrial Build	3	14	6.7	7.2	57.7
Property Development	4	33	15.8	17.0	74.7
Restoration	5	1	.5	.5	75.3
Refurbishment	6	34	16.3	17.5	92.8
Maintenance	7	6	2.9	3.1	95.9
Civil Engineering	9	8	1.0	1.0	97.0
	.	15	7.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 194 Missing Cases 15

A8-1 Aggregates

A81 Aggregates

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Aggregates	1	180	86.1	87.0	87.0
Aggregates	2	27	12.9	13.0	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A8-2 Asphalt

A82 Asphalt

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Asphalt	1	187	89.5	90.3	90.3
Asphalt	2	20	9.6	9.7	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A8-3 Cement

A83 Cement

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Cement	1	186	89.0	89.9	89.9
Cement	2	21	10.0	10.1	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A8-4 Concrete

A84 Concrete

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Concrete	1	181	86.6	87.4	87.4
Concrete	2	26	12.4	12.6	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A8-5 Deep Mines

A85 Deep Mines

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Deep Mines	1	206	98.6	99.5	99.5
Deep Mines	2	1	.5	.5	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A8-6 Mechanical & Electrical Services

A86 Mechanical & Electrical Services

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Services	1	159	76.1	77.2	77.2
Services	2	47	22.5	22.8	100.0
	.	3	1.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 206 Missing Cases 3

A8-7 Open Cast Mining

A87 Open Cast Mining

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Open Cast Mining	1	202	96.7	97.6	97.6
Open Cast Mining	2	5	2.4	2.4	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A8-8 Plant Hire

A88 Plant Hire

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Plant Hire	1	163	78.0	78.7	78.7
Plant Hire	2	44	21.1	21.3	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A8-9 Process Engineering

A89 Process Engineering

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Process Engineeri	1	202	96.7	97.6	97.6
Process Engineering	2	5	2.4	2.4	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A8-10 Steel Supply

A810 Steel Supply

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Steel Supply	1	197	94.3	95.2	95.2
Steel Supply	2	10	4.8	4.8	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A8-11 Other Secondary Activity

A811 Other Activities

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
No Other Activities	1	188	90.0	90.8	90.8
Other Activities	2	19	9.1	9.2	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A9-1 East Anglia

A91 East Anglia

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not E. Anglia	1	149	71.3	71.6	71.6
E. Anglia	2	59	28.2	28.4	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A9-2 East Midlands

A92 East Midlands

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not E. Midlands	1	161	77.0	77.4	77.4
E. Midlands	2	47	22.5	22.6	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A9-3 Greater London

A93 Greater London

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not Grtr. London	1	132	63.2	63.5	63.5
Grtr. London	2	76	36.4	36.5	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A9-4 North West England

A94 West England

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not W. England	1	162	77.5	77.9	77.9
W. England	2	46	22.0	22.1	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A9-5 Northern England

A95 Northern England

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not N. England	1	173	82.8	83.2	83.2
N. England	2	35	16.7	16.8	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A9-6 Northern Ireland

A96 Northern Ireland

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not N. Ireland	1	201	96.2	97.1	97.1
N. Ireland	2	6	2.9	2.9	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

A9-7 Scotland

A97 Scotland

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not Scotland	1	174	83.3	83.7	83.7
Scotland	2	34	16.3	16.3	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A9-8 South East England

A98 South East England

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not S.E. England	1	105	50.2	50.5	50.5
S.E. England	2	103	49.3	49.5	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A9-9 South West England

A99 South West England

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not S.W. England	1	153	73.2	73.6	73.6
S.W. England	2	55	26.3	26.4	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A9-10 South West Yorkshire

A910 South West Yorkshire & Humberside

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not S.W. Yorkshire	1	179	85.6	86.1	86.1
S.W. Yorkshire	2	29	13.9	13.9	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A9-11 Wales

A911 Wales

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not Wales	1	183	87.6	88.0	88.0
Wales	2	25	12.0	12.0	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A9-12 West Midlands

A912 West Midlands

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not W. Midlands	1	159	76.1	76.4	76.4
W. Midlands	2	49	23.4	23.6	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A10 Region Providing Greatest Annual Turnover

A10 Greatest Annual Turnover

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
E. Anglia	1	14	6.7	6.9	6.9
E. Midlands	2	12	5.7	5.9	12.8
Grtr. London	3	37	17.7	18.2	31.0
W. England	4	15	7.2	7.4	38.4
N. England	5	10	4.8	4.9	43.3
N. Ireland	6	4	1.9	2.0	45.3
Scotland	7	17	8.1	8.4	53.7
S.E. England	8	46	22.0	22.7	76.4
S.W. England	9	17	8.1	8.4	84.7
S.W. Yorkshire	10	10	4.8	4.9	89.7
Wales	11	6	2.9	3.0	92.6
W. Midlands	12	15	7.2	7.4	100.0
	.	6	2.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 203 Missing Cases 6

A11 Subsidiary

A11 Subsidiary

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Company is Subsidiar	1	113	54.1	54.1	54.1
Company not Subsidia	2	96	45.9	45.9	100.0
	TOTAL	209	100.0	100.0	

Valid Cases 209 Missing Cases 0

A12 Parent/Controlling Company

A12 Parent/Controlling Company

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Company is Parent/Co	1	97	46.4	46.6	46.6
Company is not Paren	2	111	53.1	53.4	100.0
	.	1	.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 208 Missing Cases 1

A13 Organisational Structure

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Regional Divisions	1	40	19.1	19.8	19.8
Activity Related Div	2	57	27.3	28.2	48.0
Both Regional & Acti	3	32	15.3	15.8	63.9
Single Organisation	4	65	31.1	32.2	96.0
Other	5	8	3.8	4.0	100.0
	.	7	3.3	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 202 Missing Cases 7

A14 Permanent Management Staff

Variable A14 Permanent Management Staff

Mean	181.470	Std Dev	941.225
Range	12999.000	Minimum	1
Maximum	13000	Sum	36294.000

Valid Observations - 200 Missing Observations - 9

B1-1 London Docklands

B11 London Docklands

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not L.D.D.C.	1	175	83.7	84.5	84.5
L.D.D.C.	2	32	15.3	15.5	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

B1-2 Merseyside

B12 Merseyside

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not M.D.C.	1	199	95.2	96.1	96.1
M.D.C.	2	8	3.8	3.9	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

B1-3 Cardiff Bay

B13 Cardiff Bay

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not C.B.D.C.	1	200	95.7	96.6	96.6
C.B.D.C.	2	7	3.3	3.4	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

B1-4 Teeside

B14 Teeside

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not Teeside D.C.	1	198	94.7	95.7	95.7
Teeside D.C.	2	9	4.3	4.3	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

B1-5 Central Manchester

B15 Central Manchester

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not C.M.D.C.	1	190	90.9	91.8	91.8
C.M.D.C.	2	17	8.1	8.2	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

B1-6 Trafford Park

B16 Trafford Park

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not T.P.D.C.	1	197	94.3	95.6	95.6
T.P.D.C.	2	9	4.3	4.4	100.0
	.	3	1.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 206 Missing Cases 3

B1-7 Tyne & Wear

B17 Tyne & Wear

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not T.W.D.C.	1	197	94.3	95.2	95.2
T.W.D.C.	2	10	4.8	4.8	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

B1-8 Bristol

B18 Bristol

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not B.D.C.	1	200	95.7	96.6	96.6
B.D.C.	2	7	3.3	3.4	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

B1-9 Sheffield

B19 Sheffield

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not S.D.C.	1	198	94.7	95.7	95.7
S.D.C.	2	9	4.3	4.3	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

B1-10 Black Country

B110 Black Country

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not B.C.D.C.	1	195	93.3	94.2	94.2
B.C.D.C.	2	12	5.7	5.8	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

B1-11 Leeds

B111 Leeds

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Not L.D.C.	1	195	93.3	94.2	94.2
L.D.C.	2	12	5.7	5.8	100.0
	.	2	1.0	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 207 Missing Cases 2

B2 Is U.D.C. Critical?

B2 Is UDC Critical

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
U.D.C. is Critical	1	13	6.2	9.6	9.6
U.D.C. not Critical	2	123	58.9	90.4	100.0
	.	73	34.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 136 Missing Cases 73

B3-1 Corby

B31 Corby

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	189	90.4	96.4	96.4
	2	7	3.3	3.6	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-2 Dudley

B32 Dudley

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	188	90.0	95.9	95.9
	2	8	3.8	4.1	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-3 Glanford

B33 Glanford

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	196	93.8	100.0	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-4 Hartlepool

B34 Hartlepool

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	192	91.9	98.0	98.0
	2	4	1.9	2.0	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-5 Isle Of Dogs

B35 Isle Of Dogs

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	178	85.2	90.8	90.8
	2	18	8.6	9.2	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-6 Middlesborough

B36 Middlesborough

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	187	89.5	95.4	95.4
	2	9	4.3	4.6	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-7 N.E. Lancashire

B37 NE Lancashire

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	191	91.4	97.4	97.4
	2	5	2.4	2.6	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-8 NW Kent

B38 NW Kent

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	191	91.4	97.4	97.4
	2	5	2.4	2.6	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-9 Rotherham

B39 Rotherham

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	191	91.4	97.4	97.4
	2	5	2.4	2.6	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-10 Salford/Trafford

B310 Salford\Trafford

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	183	87.6	93.4	93.4
	2	13	6.2	6.6	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-11 Scunthorpe

B311 Scunthorpe

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	195	93.3	99.5	99.5
	2	1	.5	.5	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-12 Speke

B312 Speke

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	194	92.8	99.0	99.0
	2	2	1.0	1.0	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-13 Sunderland

B313 Sunderland

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	188	90.0	95.9	95.9
	2	8	3.8	4.1	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-14 Telford

B314 Telford

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	178	85.2	92.7	92.7
	2	14	6.7	7.3	100.0
	.	17	8.1	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 192 Missing Cases 17

B3-15 Tyneside

B315 Tyneside

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	188	90.0	95.9	95.9
	2	8	3.8	4.1	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-16 Wakefield

B316 Wakefield

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	193	92.3	98.5	98.5
	2	3	1.4	1.5	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-17 Wellingborough

B317 Wellingborough

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	189	90.4	96.4	96.4
	2	7	3.3	3.6	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-18 Workington

B318 Workington

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	194	92.8	99.0	99.0
	2	2	1.0	1.0	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-19 Invergordon

B319 Invergordon

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	196	93.8	100.0	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-20 Tayside

B320 Tayside

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	194	92.8	99.0	99.0
	2	2	1.0	1.0	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-21 Clydebank

B321 Clydebank

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	187	89.5	95.4	95.4
	2	9	4.3	4.6	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-22 Inverclyde

B322 Inverclyde

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	190	90.9	96.9	96.9
	2	6	2.9	3.1	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-23 Londonderry

B323 Londonderry

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	196	93.8	100.0	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-24 Belfast

B324 Belfast

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	194	92.8	99.0	99.0
	2	2	1.0	1.0	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-25 Delyn

B325 Delyn

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	194	92.8	99.0	99.0
	2	2	1.0	1.0	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-26 Milford Haven

B326 Milford Haven

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	195	93.3	99.5	99.5
	2	1	.5	.5	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B3-27 Swansea

B327 Swansea

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	191	91.4	97.4	97.4
	2	5	2.4	2.6	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B5 Part Of Organisation Devoted To Urban Renewal

B5 Part Of Org. for U.R. only

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Part Of Firm Devoted	1	11	5.3	5.6	5.6
No Part Of Firm For	2	184	88.0	94.4	100.0
	.	14	6.7	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 195 Missing Cases 14

B6 Involvement With Consortia

B6 Consortium

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Consortium Of Constr	1	21	10.0	10.8	10.8
No Consortium	2	174	83.3	89.2	100.0
	.	14	6.7	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 195 Missing Cases 14

B7 Involvement With private Sector Agencies

B7 Private Sector Agency

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Private Sector Agenc	1	24	11.5	12.2	12.2
No Private Sector Ag	2	172	82.3	87.8	100.0
	.	13	6.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 196 Missing Cases 13

B8-1 Traditional Building Contracting

B81 Traditional Building Contracting

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	54	25.8	40.3	40.3
	2	80	38.3	59.7	100.0
	.	75	35.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 134 Missing Cases 75

B8-2 Speculative Development

B82 Speculative Development

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	79	37.8	59.0	59.0
	2	55	26.3	41.0	100.0
	.	75	35.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 134 Missing Cases 75

B8-3 Partnership With Public Organisation

B83 Partnership with Public Organisation

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	107	51.2	79.9	79.9
	2	27	12.9	20.1	100.0
	.	75	35.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 134 Missing Cases 75

B8-4 Partnership With Private Financial Organisation

B84 Partnership with Private Financial Organ

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	115	55.0	85.8	85.8
	2	19	9.1	14.2	100.0
	.	75	35.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 134 Missing Cases 75

B8-5 Partnership With Both Public And Private Organ.

B85 Partnership with Both Public & Private O

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	114	54.5	85.1	85.1
	2	20	9.6	14.9	100.0
	.	75	35.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 134 Missing Cases 75

B8-6 Joint Venture With Another Building Company

B86 Joint Venture with another Construction

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	120	57.4	89.6	89.6
	2	14	6.7	10.4	100.0
	.	75	35.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 134 Missing Cases 75

B8-7 Other

B87 Other

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	127	60.8	94.8	94.8
	2	7	3.3	5.2	100.0
	.	75	35.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 134 Missing Cases 75

B9 Method Accounting for The Greatest U.R. Turnover

B9 Method accounting for Greatest U.R. Turn

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Traditional Building	1	59	28.2	51.8	51.8
Speculative Developm	2	33	15.8	29.1	79.8
Partnership With Pub	3	7	3.3	6.1	86.0
Partnership With Fin	4	6	2.9	5.3	91.2
Partnership With Bot	5	6	2.9	5.3	96.5
Joint Venture With O	6	2	1.0	1.8	98.2
Other	7	2	1.0	1.8	100.0
	.	95	45.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 114 Missing Cases 95

B10 Type Of Project Accounting For The Greatest U.R. Turnover

B10 Type of Project accounting for Greatest

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
New Domestic	1	44	21.1	38.9	38.9
New Industrial	2	19	9.1	16.8	55.8
New Commercial	3	22	10.5	19.5	75.2
Refurbished Domestic	4	15	7.2	13.3	88.5
Refurbished Industri	5	2	1.0	1.8	90.3
Refurbished Commerci	6	9	4.3	8.0	98.2
Other	7	2	1.0	1.8	100.0
	.	96	45.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 113 Missing Cases 96

B11 Grant Aid

BELEVEN Grant Aid

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Some Work Grant Fund	1	45	21.5	33.1	33.1
No Work Grant Funded	2	90	43.1	66.2	99.3
	5	1	.5	.7	100.0
	.	73	34.9	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 136 Missing Cases 73

B12 Proportion Of Work Reliant Upon Grant Aid

BTHIRTEE Ammount Of Work Reliant On Grant Aid

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
1%-10%	0	14	6.7	34.1	34.1
11%-20%	1	13	6.2	31.7	65.9
21%-30%	2	3	1.4	7.3	73.2
31%-40%	3	1	.5	2.4	75.6
41%-50%	4	3	1.4	7.3	82.9
51%-60%	5	1	.5	2.4	85.4
61%-70%	6	1	.5	2.4	87.8
71%-80%	7	2	1.0	4.9	92.7
81%-90%	8	1	.5	2.4	95.1
91%-100%	9	2	1.0	4.9	100.0
	.	168	80.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 41 Missing Cases 168

Section C

C1-1 Past Urban Renewal General

C11 U.R. Turnover Past General

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	124	59.3	94.7	94.7
	2	7	3.3	5.3	100.0
	.	78	37.3	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 131 Missing Cases 78

C1-2 Past Urban Renewal Company

C12 U.R. Turnover Past Company

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	99	47.4	90.0	90.0
	2	11	5.3	10.0	100.0
	.	99	47.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 110 Missing Cases 99

C2-1 Future Urban Renewal General

C21 U.R. Turnover Future General

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	127	60.8	89.4	89.4
	2	15	7.2	10.6	100.0
	.	67	32.1	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 142 Missing Cases 67

C2-2 Future Urban Renewal Company

C22 U.R Turnover Future Company

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	1	.5	.8	.8
	1	108	51.7	88.5	89.3
	2	13	6.2	10.7	100.0
	.	87	41.6	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 122 Missing Cases 87

C3-1 East Anglia U.R

C31 East Anglia U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	119	56.9	93.7	93.7
	2	8	3.8	6.3	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C3-2 East Midlands U.R.

C32 East Midlands

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	114	54.5	89.8	89.8
	2	13	6.2	10.2	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C3-3 Greater London U.R

C33 Greater London

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	92	44.0	72.4	72.4
	2	35	16.7	27.6	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C3-4 North West England U.R.

C34 North West England U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	103	49.3	81.1	81.1
	2	24	11.5	18.9	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C3-5 Northern Ireland U.R.

C35 Northern Ireland U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	124	59.3	97.6	97.6
	2	3	1.4	2.4	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C3-6 Northern England U.R

C36 Northern England U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	112	53.6	88.2	88.2
	2	15	7.2	11.8	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C3-7 Scotland

C37 Scotland U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	112	53.6	88.2	88.2
	2	15	7.2	11.8	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C3-8 S.E. England U.R.

C38 S.E. England U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	110	52.6	87.3	87.3
	2	16	7.7	12.7	100.0
	.	83	39.7	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 126 Missing Cases 83

C3-9 S.W. england U.R.

C39 S.W. England U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	119	56.9	93.7	93.7
	2	8	3.8	6.3	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C3-10 S.W. Yorkshire U.R.

C310 S.W. Yorkshire U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	117	56.0	92.1	92.1
	2	10	4.8	7.9	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C3-11 Wales U.R.

C311 Wales U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	118	56.5	92.9	92.9
	2	9	4.3	7.1	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C3-12 W. Midlands U.R.

C312 West Midlands U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	109	52.2	85.8	85.8
	2	18	8.6	14.2	100.0
	.	82	39.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 127 Missing Cases 82

C4-1 E. Anglia Expected U.R.

C41

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	111	53.1	94.1	94.1
	2	7	3.3	5.9	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-2 E. Midlands Expected U.R.

C42

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	106	50.7	89.8	89.8
	2	12	5.7	10.2	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-3 Grtr. London Expected U.R.

C43

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	83	39.7	70.3	70.3
	2	35	16.7	29.7	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-4 N.W. England Expected U.R.

C44

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	89	42.6	75.4	75.4
	2	29	13.9	24.6	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-5 N. Ireland Expected U.R.

C45

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	114	54.5	96.6	96.6
	2	4	1.9	3.4	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-6 N. England Expected U.R.

C46

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	97	46.4	82.2	82.2
	2	21	10.0	17.8	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-7 Scotland Expected U.R.

C47

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	105	50.2	89.0	89.0
	2	13	6.2	11.0	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-8 S.E. England Expected U.R.

C48

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	110	52.6	93.2	93.2
	2	8	3.8	6.8	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-9 S.W. England Expected U.R.

C49

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	115	55.0	97.5	97.5
	2	3	1.4	2.5	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-10 S.W. Yorks. Expected U.R.

C410

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	109	52.2	92.4	92.4
	2	9	4.3	7.6	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-11 Wales Expected U.R.

C411

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	105	50.2	89.0	89.0
	2	13	6.2	11.0	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C4-12 W. Midlands Expected U.R.

C412

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	91	43.5	77.1	77.1
	2	27	12.9	22.9	100.0
	.	91	43.5	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 118 Missing Cases 91

C5 Nature Of Urban Renewal

C5 Nature of U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Traditional	1	92	44.0	68.1	68.1
Specialised	2	43	20.6	31.9	100.0
	.	74	35.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 135 Missing Cases 74

C6 Future Nature Of Urban Renewal

C6 Future Nature Of U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
More Specialised	1	52	24.9	34.9	34.9
Less Specialised	2	5	2.4	3.4	38.3
Stay The Same	3	92	44.0	61.7	100.0
	.	60	28.7	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 149 Missing Cases 60

C7 Urban Renewal Division In Future

C7 U.R. Division In Future

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Would Consider	1	64	30.6	36.8	36.8
Would Not Consider	2	97	46.4	55.7	92.5
Already Done So	3	13	6.2	7.5	100.0
	.	35	16.7	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 174 Missing Cases 35

C8 Present Importance Of U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
1	1	56	26.8	31.3	31.3
2	2	34	16.3	19.0	50.3
3	3	49	23.4	27.4	77.7
4	4	20	9.6	11.2	88.8
5	5	20	9.6	11.2	100.0
	.	30	14.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 179 Missing Cases 30

C9 Future Importance Of U.R.

C9 Future Importance Of U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
1	1	38	18.2	21.2	21.2
2	2	33	15.8	18.4	39.7
3	3	58	27.8	32.4	72.1
4	4	31	14.8	17.3	89.4
5	5	19	9.1	10.6	100.0
	.	30	14.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 179 Missing Cases 30

C10-1 Statement 1

C101A

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	23	11.0	13.1	13.1
	2	24	11.5	13.6	26.7
	3	47	22.5	26.7	53.4
	4	39	18.7	22.2	75.6
	5	43	20.6	24.4	100.0
	.	33	15.8	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 176 Missing Cases 33

C10-2 Statement 2

C102A

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	29	13.9	16.6	16.6
	2	44	21.1	25.1	41.7
	3	41	19.6	23.4	65.1
	4	38	18.2	21.7	86.9
	5	23	11.0	13.1	100.0
	.	34	16.3	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 175 Missing Cases 34

C10-3 Statement 3

C103A

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	15	7.2	8.6	8.6
	2	19	9.1	10.9	19.4
	3	62	29.7	35.4	54.9
	4	46	22.0	26.3	81.1
	5	33	15.8	18.9	100.0
	.	34	16.3	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 175 Missing Cases 34

C10-4 Statement 4

C104A

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	11	5.3	6.3	6.3
	2	19	9.1	10.9	17.2
	3	42	20.1	24.1	41.4
	4	52	24.9	29.9	71.3
	5	50	23.9	28.7	100.0
	.	35	16.7	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 174 Missing Cases 35

C10-5 Statement 5

C105A

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	16	7.7	9.4	9.4
	2	23	11.0	13.5	22.9
	3	63	30.1	37.1	60.0
	4	33	15.8	19.4	79.4
	5	35	16.7	20.6	100.0
	.	39	18.7	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 170 Missing Cases 39

C10-6 Statement 6

C106A

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	6	2.9	3.4	3.4
	2	9	4.3	5.1	8.5
	3	20	9.6	11.4	19.9
	4	57	27.3	32.4	52.3
	5	84	40.2	47.7	100.0
	.	33	15.8	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 176 Missing Cases 33

C10-7 Statement 7

C107A

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	41	19.6	23.0	23.0
	2	42	20.1	23.6	46.6
	3	49	23.4	27.5	74.2
	4	22	10.5	12.4	86.5
	5	24	11.5	13.5	100.0
	.	31	14.8	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 178 Missing Cases 31

C10-8 Statement 8

C108A

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	40	19.1	23.0	23.0
	2	26	12.4	14.9	37.9
	3	42	20.1	24.1	62.1
	4	34	16.3	19.5	81.6
	5	32	15.3	18.4	100.0
	.	35	16.7	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 174 Missing Cases 35

C10-9 Statement 9

C109A

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	5	2.4	2.9	2.9
	2	7	3.3	4.0	6.9
	3	25	12.0	14.5	21.4
	4	51	24.4	29.5	50.9
	5	85	40.7	49.1	100.0
	.	36	17.2	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 173 Missing Cases 36

C10-10 Statement 10

C1010A

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	13	6.2	7.5	7.5
	2	19	9.1	10.9	18.4
	3	53	25.4	30.5	48.9
	4	49	23.4	28.2	77.0
	5	40	19.1	23.0	100.0
	.	35	16.7	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 174 Missing Cases 35

Section D

D1 Company Response

D1 Company Response To U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
Made Response	1	88	42.1	48.1	48.1
Made No Response	2	95	45.5	51.9	100.0
	.	26	12.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 183 Missing Cases 26

D2 Part Of Structure Devoted To Urban Renewal

D2 Part Of Structure Devoted To U.R.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
U.R. Division	1	20	9.6	10.9	10.9
No U.R. Division	2	163	78.0	89.1	100.0
	.	26	12.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 183 Missing Cases 26

D3-1 Local Consortia

D31 Local Consortia

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	136	65.1	86.1	86.1
	1	22	10.5	13.9	100.0
	.	51	24.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 158 Missing Cases 51

D3-2 National Consortia

D32 National Consortia

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	147	70.3	93.0	93.0
	1	11	5.3	7.0	100.0
	.	51	24.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 158 Missing Cases 51

D3-3 Joint Venture Company With Developer

D33 Joint Venture Company with Developer

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	127	60.8	80.4	80.4
	1	31	14.8	19.6	100.0
	.	51	24.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 158 Missing Cases 51

D3-4 Joint Venture With Local Authority

D34 Joint Venture with L.A.

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	134	64.1	84.8	84.8
	1	24	11.5	15.2	100.0
	.	51	24.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 158 Missing Cases 51

D3-5 Private Sector Enabling Agency

D35 Private Sector Enabling Agencies

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	0	136	65.1	86.1	86.1
	1	22	10.5	13.9	100.0
	.	51	24.4	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 158 Missing Cases 51

Section E

E1 Ease Of Completion Of The Questionnaire

E1 Ease

Value Label	Value	Frequency	Percent	Valid Percent	Cum Percent
	1	39	18.7	22.2	22.2
	2	38	18.2	21.6	43.8
	3	58	27.8	33.0	76.7
	4	30	14.4	17.0	93.8
	5	11	5.3	6.3	100.0
	.	33	15.8	MISSING	
	TOTAL	209	100.0	100.0	

Valid Cases 176 Missing Cases 33

APPENDIX C

CONFIDENCE LIMITS

The survey results presented in Appendix B are true only for the sample of 209 companies that completed the questionnaire. However it is possible to estimate the parameters of the population of companies as a whole from the results of the sample. These estimates are generally given with a 95% or 99% confidence interval. Thus, it is possible to be 95% or 99% confident that the true value for the population lies between two limits. In this case a 99% confidence interval is used. Each variable from the questionnaire is considered in turn along with an upper and lower confidence limit. Where the variable contains two possible responses confidence limits are only given for one of the responses. If a variable contains more than two possible responses then confidence limits are given for each.

Example

Variable QA5-1 examines whether or not companies engage in new domestic construction. The percentage of the sample that claimed to do so was 76.0%. When the result is applied to the population as a whole it is possible to be 99% confident that the true proportion is between 68.61% and 83.39%

Section A		Lower Limit	Upper Limit
A4	Mean Turnover	£36.65M	£81.47M
A5-1	New Domestic Construction	68.61%	83.39%
A5-2	New Commercial Construction	70.73%	85.07%
A5-3	New Industrial Construction	18.41%	33.59%
A5-4	Property Development	34.73%	51.87%
A5-5	Restoration	48.13%	65.27%
A5-6	Refurbishment	66.96%	82.04%
A5-7	Maintenance	28.65%	45.35%
A5-8	Piling/Foundations	3.09%	12.31%
A5-9	Civil Engineering	8.74%	21.05%
A5-10	Other	10.33%	23.27%
A7	**Activity Providing Greatest Turnover**		
	New Domestic Construction	26.85%	45.35%
	New Commercial Construction	8.33%	20.47%
	New Industrial Construction	2.73%	11.67%
	Property Development	10.50%	23.50%
	Restoration	0.00%	1.72%
	Refurbishment	10.93%	24.07%
	Maintenance	0.10%	6.10%
	Piling/Foundations	0.00%	0.00%
	Civil Engineering	0.00%	2.72%
	Other	0.67%	7.53%

A7	**Activity Providing Greatest Pre-Tax Profit**		
	New Domestic Construction	28.36%	45.03%
	New Commercial Construction	19.87%	35.33%
	New Industrial Construction	4.97%	15.43%
	Property Development	1.96%	10.24%
	Restoration	0.00%	1.72%
	Refurbishment	7.02%	18.58%
	Maintenance	0.00%	0.00%
	Piling/Foundations	0.00%	0.00%
	Civil Engineering	0.00%	4.42%
	Other	0.67%	7.53%
A8-1	Aggregates	7.18%	14.82%
A8-2	Asphalt	4.58%	14.82%
A8-3	Cement	4.89%	15.31%
A8-4	Concrete	6.86%	18.34%
A8-5	Deep Mines	0.00%	1.72%
A8-6	Mech/Elec Services	15.54%	30.06%
A8-7	Open Cast Mining	0.00%	5.05%
A8-8	Plant Hire	14.22%	28.38%
A8-9	Process Engineering	0.00%	5.05%
A8-10	Steel Supply	1.10%	8.50%
A8-11	Other	4.20%	14.20%

A9-1	E. Anglia	20.60%	36.20%
A9-2	E. Midlands	15.36%	29.83%
A9-3	Greater London	28.17%	44.82%
A9-4	N.W. England	14.92%	29.75%
A9-5	N. England	10.33%	23.26%
A9-6	N. Ireland	0.00%	5.80%
A9-7	Scotland	9.91%	22.69%
A9-8	S.E. England	40.85%	58.15%
A9-9	S.W. England	18.77%	34.02%
A9-10	S.W. Yorkshire	7.92%	19.88%
A9-11	Wales	6.38%	17.62%
A9-12	W. Midlands	16.26%	30.94%

A10	**Regions Providing The Greatest Turnover**		
	E. Anglia	2.52%	11.28%
	E. Midlands	1.83%	9.97%
	Greater London	11.53%	24.87%
	N.W. England	2.87%	11.93%
	N. England	1.17%	8.63%
	N. Ireland	0.00%	4.42%
	Scotland	3.60%	13.20%
	S.E. England	15.46%	29.94%
	S.W. England	3.60%	13.20%
	S.W. Yorkshire	1.17%	8.63%
	Wales	0.05%	5.95%
	W. Midlands	2.87%	11.93%

A11	Company is a subsidiary	45.48%	62.72%
A12	Company is parent	37.97%	55.22%
A13	**Organisational Structure**		
	Regionally Based	12.91%	26.69%
	Activity Based	20.42%	35.98%
	Both Of The Above	9.49%	22.11%
	Single Organisation	24.12%	40.28%
	Other	0.61%	7.39%
A14	Mean Number Of Staff	18	344

Section B

B1-1	London Docklands	9.24%	21.76%
B1-2	Merseyside	0.55%	7.25%
B1-3	Cardiff Bay	0.27%	6.53%
B1-4	Teeside	0.79%	7.81%
B1-5	Central Manchester	3.46%	12.94%
B1-6	Trafford Park	0.85%	7.95%
B1-7	Tyne & Wear	1.10%	8.50%
B1-8	Bristol	0.27%	6.53%
B1-9	Sheffield	0.79%	7.81%
B1-10	Black Country	1.76%	9.84%
B1-11	Leeds	1.76%	9.84%

B2	U.D.C is critical	4.51%	14.69%
B3-1	Corby	0.38%	6.82%
B3-2	Dudley	0.67%	7.53%
B3-3	Glanford	0.00%	0.00%
B3-4	Hartlepool	0.00%	4.42%
B3-5	Isle Of Dogs	4.21%	14.20%
B3-6	Middlesborough	0.98%	8.22%
B3-7	N.E. Lancashire	0.00%	5.35%
B3-8	N.W. Kent	0.00%	5.35%
B3-9	Rotherham	0.00%	5.35%
B3-10	Salford/Trafford	2.31%	10.89%
B3-11	Scunthorpe	0.00%	1.72%
B3-12	Speke	0.00%	1.72%
B3-13	Sunderland	0.67%	7.53%
B3-14	Telford	2.80%	11.80%
B3-15	Tyneside	0.67%	7.53%
B3-16	Wakefield	0.00%	3.60%
B3-17	Wellingborough	0.38%	6.82%
B3-18	Workington	0.00%	1.72%
B3-19	Invergordon	0.00%	0.00%
B3-20	Tayside	0.00%	2.72%
B3-21	Clydebank	0.98%	8.22%
B3-22	Inverclyde	0.10%	6.10%
B3-23	Londonderry	0.00%	0.00%
B3-24	Belfast	0.00%	2.72%

B3-25	Delyn	0.00%	2.72%
B3-26	Milford Haven	0.00%	1.72%
B3-27	Swansea	0.00%	5.35%
B5	Part Of Company For U.R.	1.62%	9.58%
B6	Involved With Consortia	5.43%	16.17%
B7	Involved With Agency	6.54%	17.86%
B8-1	Traditional	51.22%	68.18%
B8-2	Speculative	32.49%	49.50%
B8-3	Public Partnership	13.17%	27.03%
B8-4	Financial Partnership	8.16%	20.24%
B8-5	Both Public & Private	8.74%	21.06%
B8-6	Joint Venture	5.12%	15.68%
B8-7	Other	1.36%	9.04%
B9	**Method Accounting For The Greatest U.R. Turnover**		
	Traditional	43.16%	60.44%
	Speculative	20.33%	35.82%
	Public Partnership	1.96%	10.24%
	Financial Partnership	1.43%	9.17%
	Both Public & Private	1.43%	9.17%
	Joint Venture	0.00%	4.10%
	Other	0.00%	4.10%

B10	**Project Type Accounting For**		
	The Greatest Turnover		
	New Domestic	30.47%	47.33%
	New Industrial	10.33%	23.27%
	New Commercial	12.64%	26.35%
	Refurbished Domestic	7.43%	19.17%
	Refurbished Industrial	0.00%	4.10%
	Refurbished Commercial	3.31%	12.69%
	Other	0.00%	4.10%
B11	Grant Aid	24.96%	41.24%
B12	**Proportion Of Work Reliant**		
	Upon Grant Aid		
	1%-10%	25.90%	42.30%
	11%-20%	23.65%	39.75%
	21%-30%	2.80%	11.80%
	31%-40%	0.00%	5.05%
	41%-50%	2.80%	11.80%
	51%-60%	0.00%	5.05%
	61%-70%	0.00%	5.05%
	71%-80%	1.17%	8.63%
	81%-90%	0.00%	5.05%
	91%-100%	1.17%	8.63%

Section C

C1-1	U.R. Has Increased Co.	84.81%	95.19%
C1-2	U.R. Has Increased Ind.	90.83%	98.57%
C2-1	U.R. Will Increase Co.	84.08%	94.72%
C2-2	U.R. Will Increase Ind.	82.98%	94.02%
C3-1	E.Anglia U.R.	2.10%	10.50%
C3-2	E. Midlands U.R.	4.97%	15.43%
C3-3	Grtr. London U.R.	19.87%	35.33%
C3-4	N.W. England U.R.	12.13%	25.67%
C3-5	N. England U.R.	0.00%	5.05%
C3-6	N. Ireland U.R.	6.22%	17.38%
C3-7	Scotland U.R.		
C3-8	S.E. England U.R.	6.94%	18.46%
C3-9	S.W. England U.R.	2.10%	10.50%
C3-10	S.W. Yorkshire U.R.	3.24%	12.56%
C3-11	Wales U.R.	2.66%	11.54%
C3-12	W. Midlands U.R.	8.16%	20.24%
C4-1	E. Anglia	1.83%	9.97%
C4-2	E. Midlands	4.97%	15.43%
C4-3	Grtr. London	21.80%	37.60%
C4-4	N.W. England	17.15%	32.05%
C4-5	N. Ireland	0.27%	6.53%
C4-6	N. England	11.18%	24.41%

C4-7	Scotland	5.59%	16.41%
C4-8	S.E. England	2.45%	11.15%
C4-9	S.W. England	0.00%	5.20%
C4-10	S.W. Yorkshire	3.02%	12.18%
C4-11	Wales	5.59%	16.41%
C4-12	W. Midlands	15.63%	30.17%
C5	**Current Nature Of U.R.**		
	Traditional	60.04%	76.16%
	Specialised	28.84%	39.96%
C6	**Future Nature Of U.R.**		
	More Specialised	26.66%	43.14%
	Less Specialised	0.27%	6.53%
	Stay The Same	53.29%	70.11%
C7	**Specialised Division**		
	Would Consider	28.46%	45.13%
	Would Not Consider	47.11%	64.29%
	Have Already Done So	2.95%	12.05%
C8	**Current Importance Of U.R**		
	1	23.28%	39.32%
	2	12.22%	25.78%
	3	19.69%	35.11%
	4	5.75%	16.65%
	5	5.75%	16.65%

C9	**Future Importance Of U.R.**		
	1	14.13%	28.27%
	2	11.70%	25.10%
	3	24.31%	40.49%
	4	10.76%	23.84%
	5	5.28%	15.92%
C10	Statement 1		
	1	7.27%	18.93%
	2	7.67%	19.53%
	3	19.05%	34.35%
	4	15.01%	29.39%
	5	16.97%	31.83%
	Statement 2		
	1	10.17%	23.03%
	2	17.60%	32.60%
	3	16.08%	30.72%
	4	14.57%	28.83%
	5	7.26%	18.93%
	Statement 3		
	1		
	2	3.75%	14.45%
	3	5.51%	16.29%
	4	27.13%	43.67%
	5	18.69%	33.91%
		12.13%	25.67%

Statement 4		
1	2.10%	10.50%
2	5.51%	16.29%
3	16.70%	31.50%
4	21.98%	37.82%
5	20.88%	36.52%
Statement 5		
1	4.35%	14.45%
2	7.59%	19.41%
3	28.75%	45.45%
4	12.56%	26.24%
5	13.60%	27.59%
Statement 6		
1	0.27%	6.63%
2	1.30%	8.90%
3	5.90%	16.90%
4	24.31%	40.49%
5	39.06%	56.34%
Statement 7		
1	15.72%	30.28%
2	16.26%	30.94%
3	19.78%	35.22%
4	6.70%	18.10%
5	7.59%	19.41%

	Statement 8		
	1	15.72%	30.28%
	2	8.74%	21.06%
	3	16.70%	31.50%
	4	12.65%	26.35%
	5	11.70%	25.10%
	Statement 9		
	1	0.00%	5.80%
	2	0.61%	7.39%
	3	8.41%	20.59%
	4	21.61%	37.39%
	5	40.45%	57.75%
	Statement 10		
	1	2.95%	12.05%
	2	5.51%	16.29%
	3	22.54%	38.46%
	4	20.42%	35.98%
	5	15.72%	30.28%

Section D

D1	Response to U.R.	39.46%	56.74%
D2	Part Of Organisation For U.R.	5.51%	16.23%

D3-1	Local Consortia	7.92%	19.88%
D3-2	National Consortia	2.59%	11.41%
D3-3	Joint Venture-Developer	12.74%	26.46%
D3-4	Joint Venture-Local Auth.	8.99%	21.41%
D3-5	Work With Private Agency	7.92%	19.88%

Section E

E1	**Ease Of Completion**		
	1	15.01%	29.39%
	2	14.48%	28.72%
	3	24.87%	41.13%
	4	10.50%	23.50%
	5	2.10%	10.50%